

LAYSAN

LS 19

JUNE 1967

DELONG

Leewards #19

Laysan Island.

7-13 June 1967

R.L. DeLong

Laysan Island

7- June 1967

Done
OK

Basin Survey 79me

Laysan A/batons

Chicks

Ad.

12, 3, 3, 10, 20, 20, 11

50, 100, 30, 200, 200

200, 100 25, 20, 20

1/23

Black footed Albatross

Chicks

Adults

5,2,50,75,256

130,260,287,100,204

135,140,290,450

430,100,300,300,200

200,300 350 350,100

279,250,387,500,550

302,104,50,20

7611

Wedge tailed

Christmas Island Stern.

Nesting in Rocks on North end of isl.
See digger burrows in the sand
under the rocks. See on recently
incubated eggs. - associated
with bulwer petrels.

Rocks on So end of Isl. - on eggs
Ca ~~100~~ 200

Bonin Island Petrel

Bulwer's Petrel

North Roosting & Sand beach - between
on mud to heavily incubated eggs.

Nest sites: burrows under rocks. Only
deep enough to obtain complete shade.

Nesting associated with CFS shear in
same habitat

#'s in the hundreds - ca 100-200 at
this location

Brown booby

W/1e

1

7

W/2e

111

13

W/1e & 1NG

1

11

Red-footed booby

w/ie

||||

[6]

w/ny

||||

[5]

w/sdy

||||

[4]

w/mdy

||||

[5]

w/Ldy

Nest when

[11]

Blue faced booby

w/ie

v4e

w/ny

1

[1]

v/sdy

11

[12]

v/mdy

11

[12]

w/Ldy

Great fighting

wie

III III III III

~~II~~ III IIII II ~~III~~ IIII IIII IIII

~~Page 11~~ 11 72

signed 11/

Why

|||||

HT HT HT HT HT

49

North entry

W 5 dy

[illegible]

4711

23

$$v/m \ll v$$

III III III

211 211 211 211 211
31

L Dy

17/11/19

Inr - Sad

|||| ~~||||~~ ||||

111 20

Nach und

111



R T T B


✓ ADP

Wie

||||| ||||| ||||| ||||| |||||

132

w/ sdy - 11/11



635-16780 Aw/sdg

two marks - Economy - on edge of figs etc
along a meter of ground

Gray backed tern

Eggs

1111

Wdg 1111

Ldg 111

Flying 1111

111

15 - on beach high and in Rocks

100 on beach & Seaweed fringe

200 on North beach - flying & large colony

Sooty tern

Black Noddy

Brown Noddy

w/12

|||| |||| ||||

v/sdy

wady

1

on north beach in boulders - all on eggs -

Fairy tern

w/ndy - 1 in Scaevola - 6 birds above ground
w/ndy - on Rock on beach

w/e III Sdy - 1 6 birds
along

w/ndy III

Flying in

II

Shore birds

Ruddy Turnstone

14/ 30 16

39

Golden Plover II

breeding:

Non breeding:

Wandering Tattler I

11

BTcl.

14/11

5

Adults

||||| ||||| ||||| ||||| ||||| |||||
||||| ||||| ||||| ||||| ||||| |||||

Subadults

||||| ||||| ||||| |||||

Yearlings

|||||

pups - (unweaned)

|||

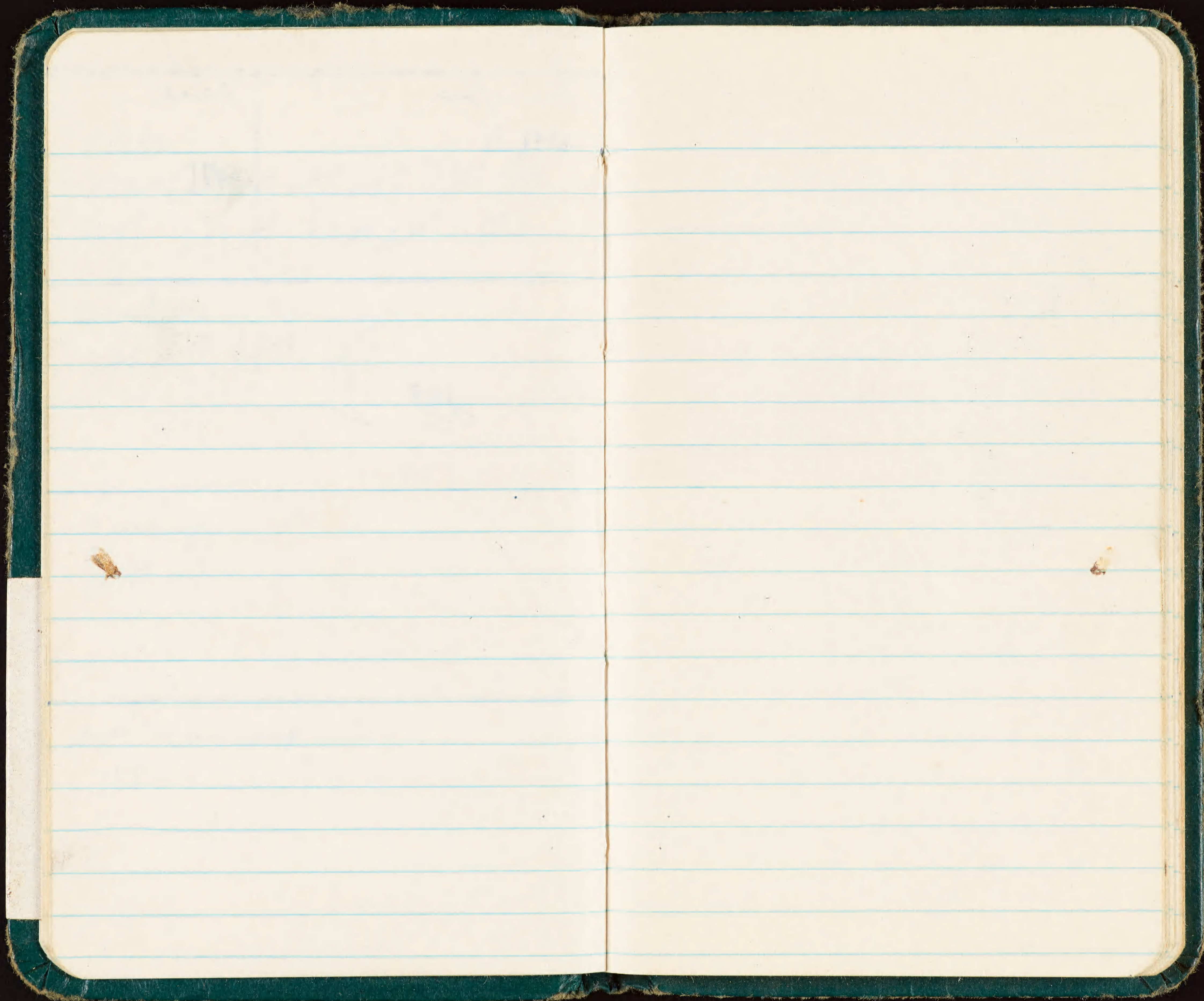
Cow w/pup

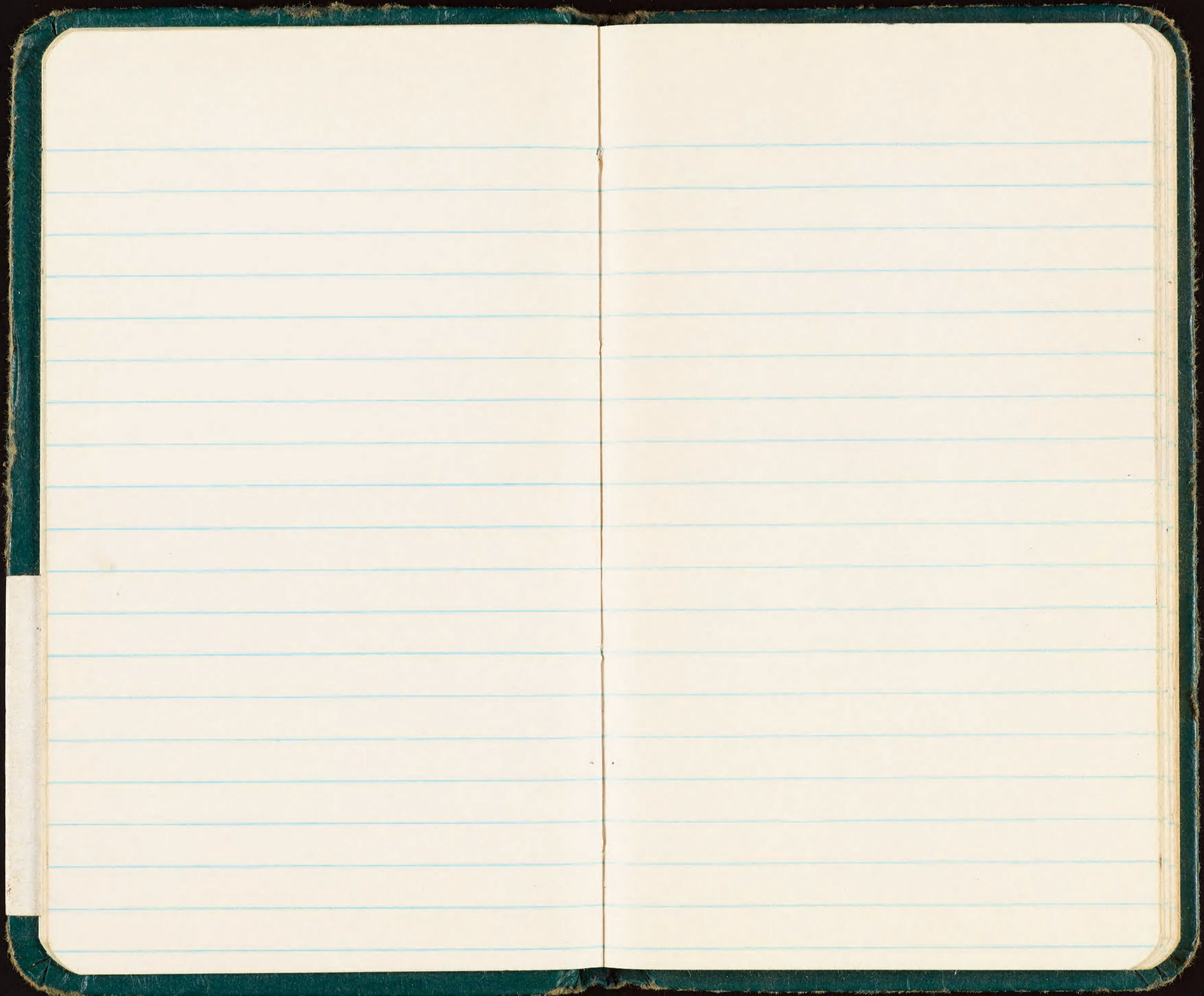
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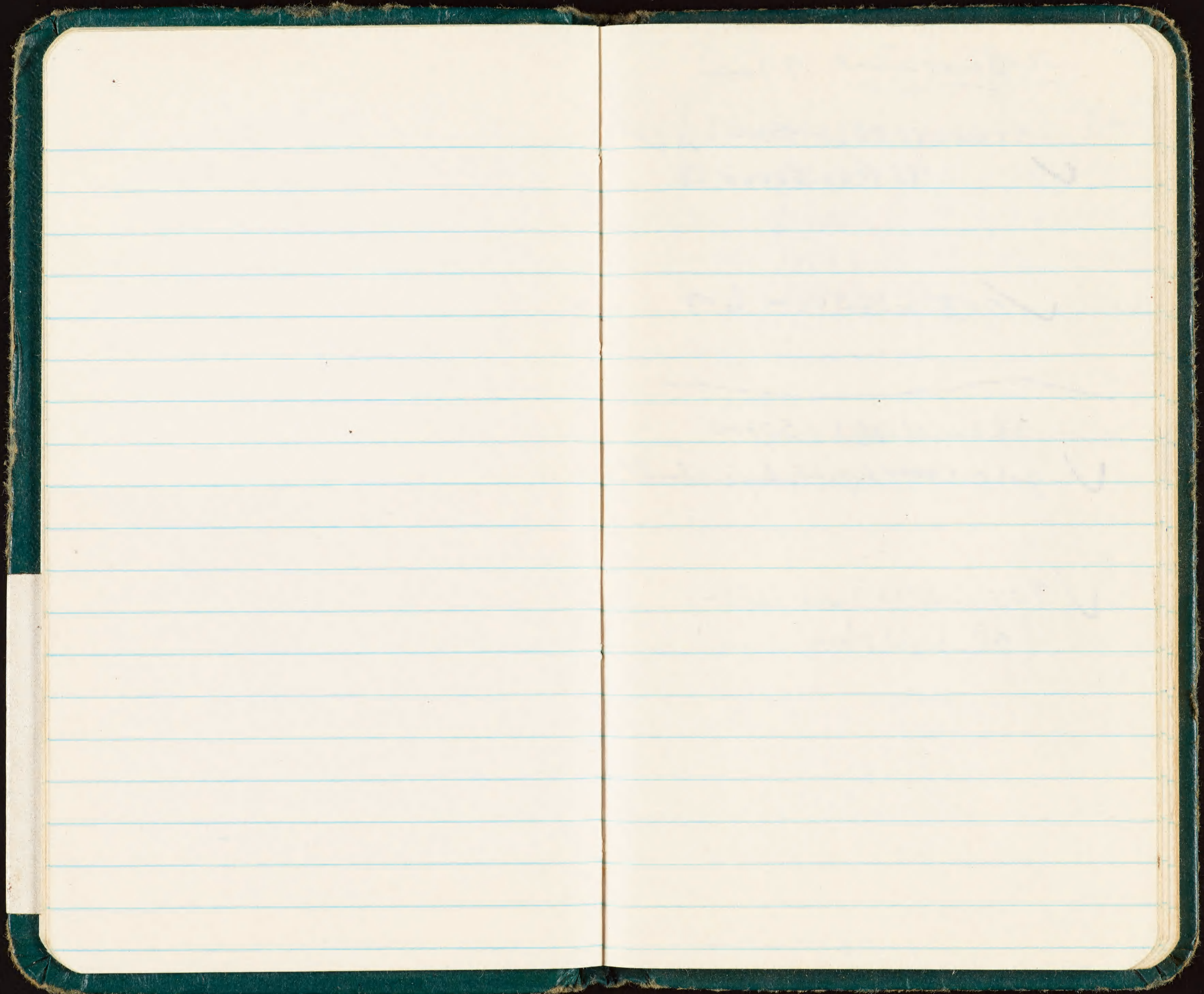
Paired

|||||

128 136







Bands issued 7 June

✓ 993 - 45001 - 45000 ? *redacted*
45501 - 50000 ?

✓ 705 - 14501 - 600

✓ 993 - 45001 - 50000
put on ~~check~~ *dup chid, dup e, dup BP*

✓ 705 - 14501 - 600 - wtsk
all light plane.

705 - 745 - -

635 - 19217 - *mid* - 45 Lt
625 - 32658 - " 39 ✓
635 19455 " 37 ✓
19692 " 46

✓ADP

963

(19)

85097 ✓

61764 ✓

24037 ✓

80612 ✓

81329 ✓

47502 ✓

67239 ✓

85639 ✓

66468 ✓

45999 ✓

79909 ✓

65572 ✓

74794 ✓

71588 ✓

98068 ✓

50075 ✓

60195 ✓

68899 ✓

67356 ✓

863L

73987

64068

72148 w/ok

68801

77405

753-74254

893-01682-RL

823-13990

823-19043

✓ADP

903

(17)

41368 ✓

49104 ✓

49485 ✓

75088 ✓

50835 ✓

89231 ✓

29426 ✓

34205 ✓

33259 ✓

50984 ✓

32545 ✓

67288 ✓

56897 ✓

71119 ✓

61570 ✓

61564 ✓

31267 ✓

49

os

A 1

Sad 1

yr

pus

Drain

Con w/ps

A unknown
VI

757-

8 June

34 301-400

34 401-500

33 501-600

✓ BFA - all this data
checked

99me
✓ADP

863

65113 ✓

71090 ✓

60026 ✓

72133 ✓

843-67326 ✓

1 68747 ✓

13957 ✓

823-17826 ✓

893-04964 ✓

10744 ✓

07931 ✓

903

✓ADP
(21)

85245 ✓

65300 ✓

50786 ✓

25999 ✓

88790 ✓

48571 ✓

50650 ✓

47994 ✓

56490 ✓

38305 ✓

30870 ✓

30065 ✓

76476 ✓

81775 ✓

38525 ✓

50969 ✓

85972 ✓

84189 ✓

25978 ✓

40611 ✓

74366 ✓

109 June

✓ ADP

843

(a)

893

(8)

68805 ✓ 65606 ✓

67189 ✓

62146 ✓

67985 ✓

67897 ✓

64411 ✓

65881 ✓

67263 ✓

10771 ✓

05850 ✓

02791 ✓

00485 ✓

07731 ✓

05932 ✓

10364 ✓

05606 ✓

793 - 82235 ✓

893 - 07571 ✓

06378 ✓

to 3

12365 ✓

863 ✓

64203 ✓

66843 ✓

66413 ✓

74310 ✓

68813 ✓

60307 ✓

26728 dc Recruit ✓

64825 ✓

67106 ✓

(a)

(A)

ALL on ADP ✓

✓

903

(49)

59544

88168

55709

32168

69819

76777

61934

77953

22029

45792

71352

55728

73730

44472

35876

65219

27921

31128

55314

21879

53988

my circle PDC

90422

65638

65173

37917

39639

70348

42521

33828

85368

Some bind

88398

63878

37988

87133

99222

51261

75660

65330

68027

63991

54636

48623

60532

24795

41839

37065

43319

54274

21346

10 June

- 114 ♂ pup. unattended
115 ♀ "
116 ♂ "
117 ♂ " Very fat & molting
118 ♂ " Moderate size
119 ♂ " "
120 ♂ " Small - Not very fat
121 ♂ " Large - very fat - molting
122 ♂ " Young - on 1 week
123 ♂ " Moderate size on 2-2.5 week
124 ♂ " Small but not thin - ♀
is small also
125 ♂ " Silvery Pass.

A 37 - yr male ✓

Pup - New born - on beach by
cave - umbilicus still
web - web connected to
placenta - Cove very picturesque

11 June

Adult ♂

11

✓

♀

||||| ✓

Seed ♂

1

✓

♀

||||| ✓

u 1

yearling ♂

|||||

photos

✓

♀

✓

u 11

✓

Pup ♂ flush

10

✓

♀

1

✓

rd. paired

|||| 4|||

✓

Pup - Silver ♂

|||| ~~||||~~ ||||

✓

he,

✓

conv w/pup Blh

P.S.

♀

||||

✓

Cup/siv

1

✓

AN

|||||

- ✓ A 39 ♀ yearling ? (Brownish Silver)
 ✓ A 48 ♂ yearling or older = Brown with
 algae growth
 ✓ A 59 ♀ - Photo - Pres
 ✓ A 43 ? " Pres
 ✓ A 63 ♀ Photo Pres
 ✓ A 61 ♂ Pres
 ✓ A 46 ♂ Pres

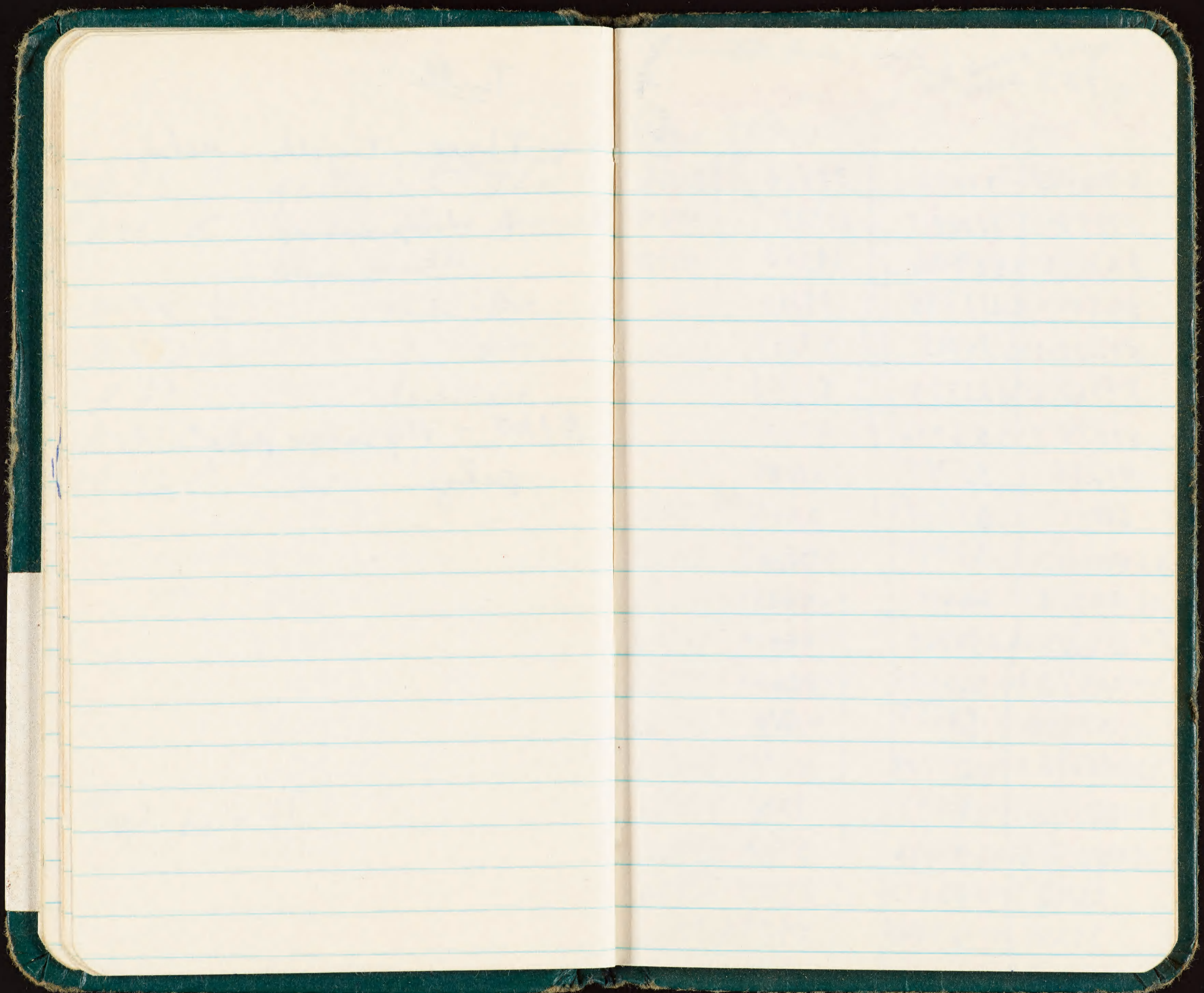
Tagged Pres a. - 1

Turtle

Three together - mat size

1 large animal.

A 125 - 11 June - Pres ♂ in silver
pelage.



11 June Sooty Returns ² A ₇

903
ON ✓ ADP - ALL BELOW

67214	71176	39411	80169
33793	31378	85397	48659
32240	88351	39350	87175
89900	41798	39170	
50271	34038	57337	
33465	21579	81503	
61579	56046	42407	
41238	85785	48680	
68850	67578	20671	
40302	37080	48109	
46928	26679	56254	
47385	30764	84458	
45737	26679	88625	
57296	83859	43818	
88696	67709	41034	
51806	47931	73061	
40503	77436	54962	
26475	32275	54017	
39254	27945	89579	

823

20753

993

47906

863

61525 ✓ 73149 ✓

71110 ✓ 77307 ✓

63820 68587 ✓

62037 ✓

63307 ✓

60896 ✓

61407 ✓

843

68149 ✓

61719 ✓

67282 ✓

69040 ✓

67720 ✓

63624 ✓

68979 ✓

65674 ✓

68744 ✓

64408 ✓

60434 ✓

62849 ✓

67882 ✓

67892 ✓

893

✓ 01965

10468

✓ 02496

07992

✓ 02015

07669

14093

05014

✓ 07443

13135

✓ 10179

07675

✓ 00794

08144

✓ 03355

04975

✓ 03141

✓ 01923

✓ ADP ✓ bd same trip PBC

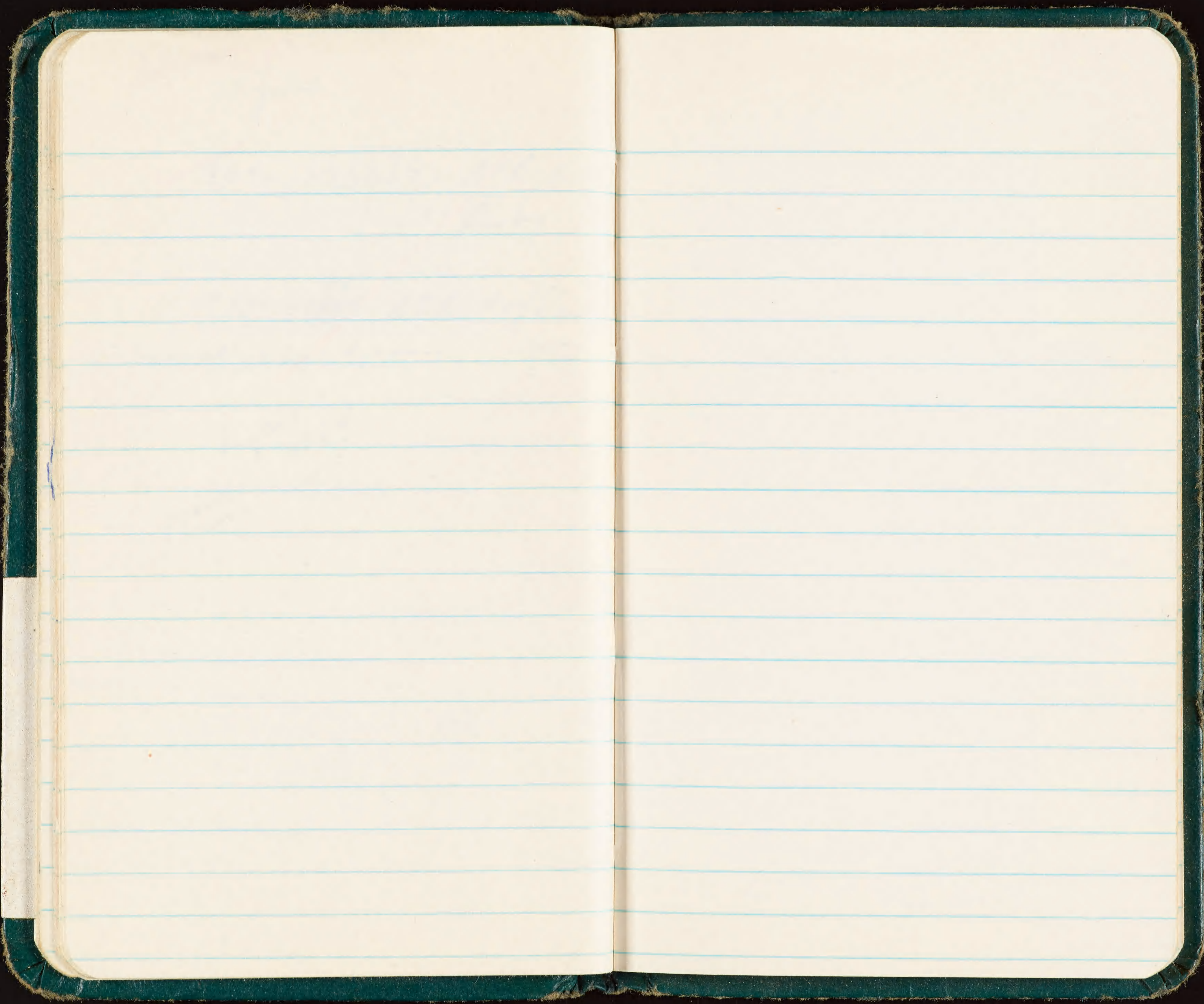
10

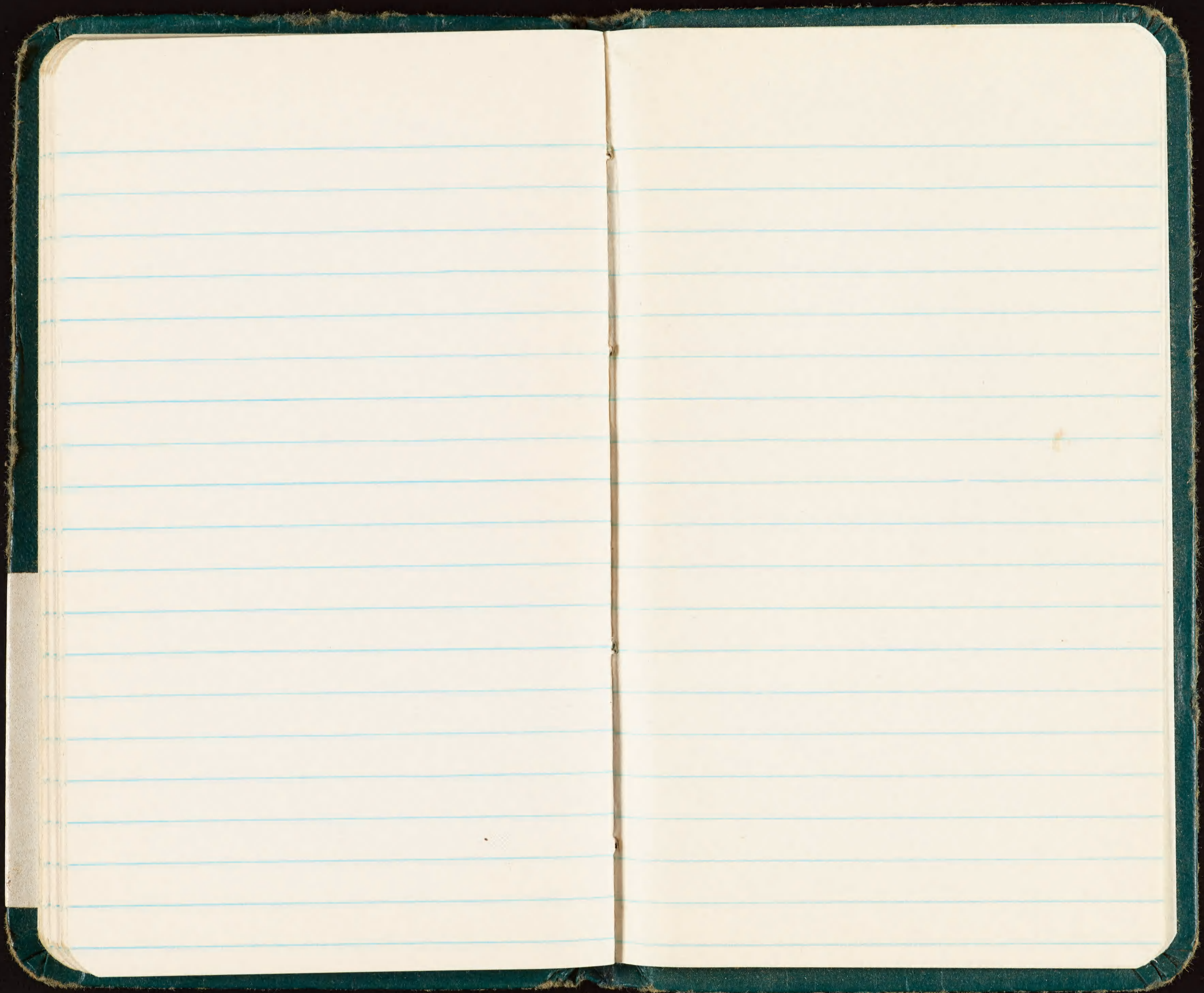
✓ADP
11 June

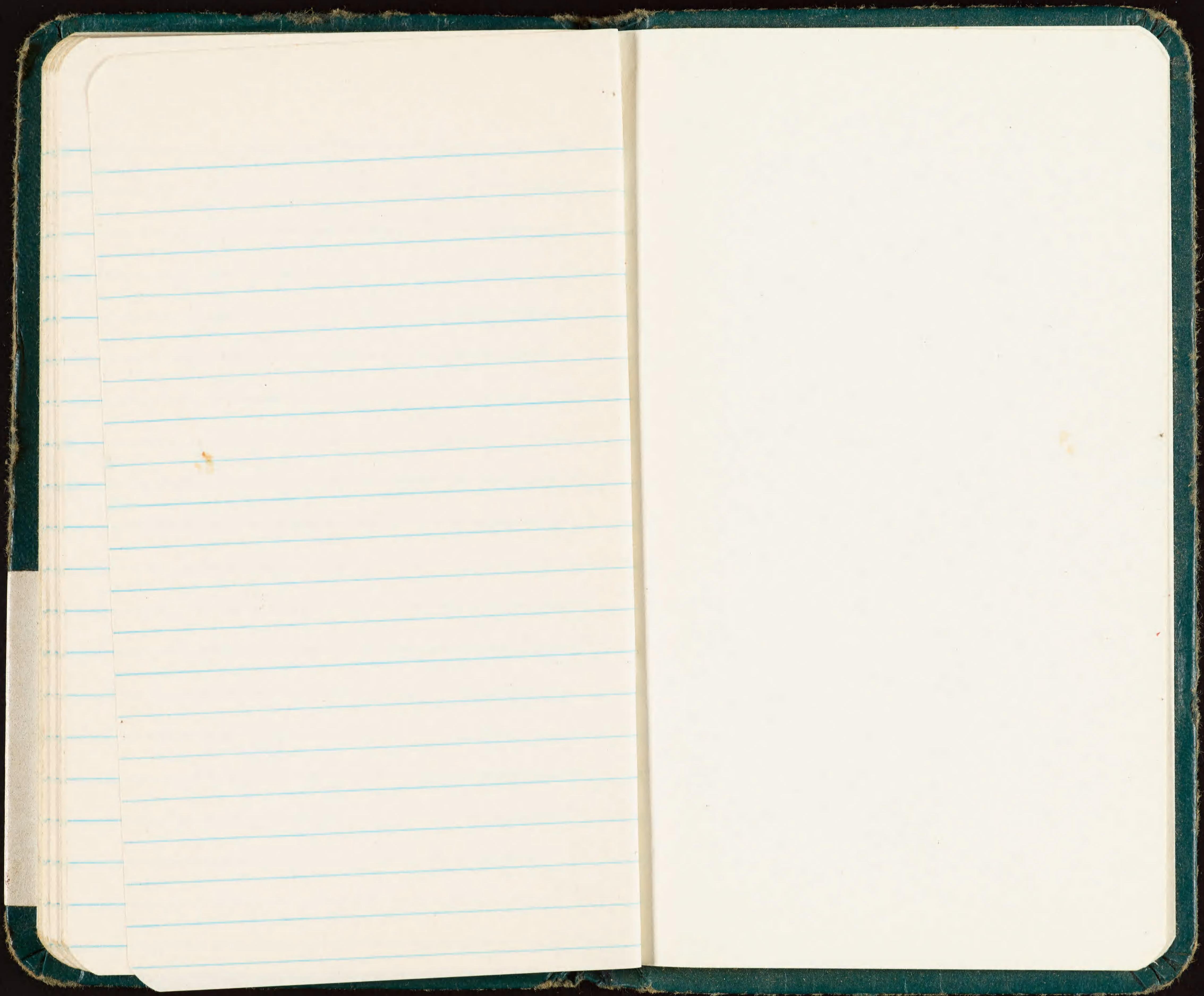
✓757- 25519 BFB ♀ Ad
Roosting

441
773-404~~441~~ BI Red Ad/flyer
band badly but nearly worn. imm

Aug^m 1964
March.







757-29001-16

RF or BFB

7530-222-00
FEDERAL SUPPLY SERVICE

Memoranda

Leeward Is #19

Mayson Island.

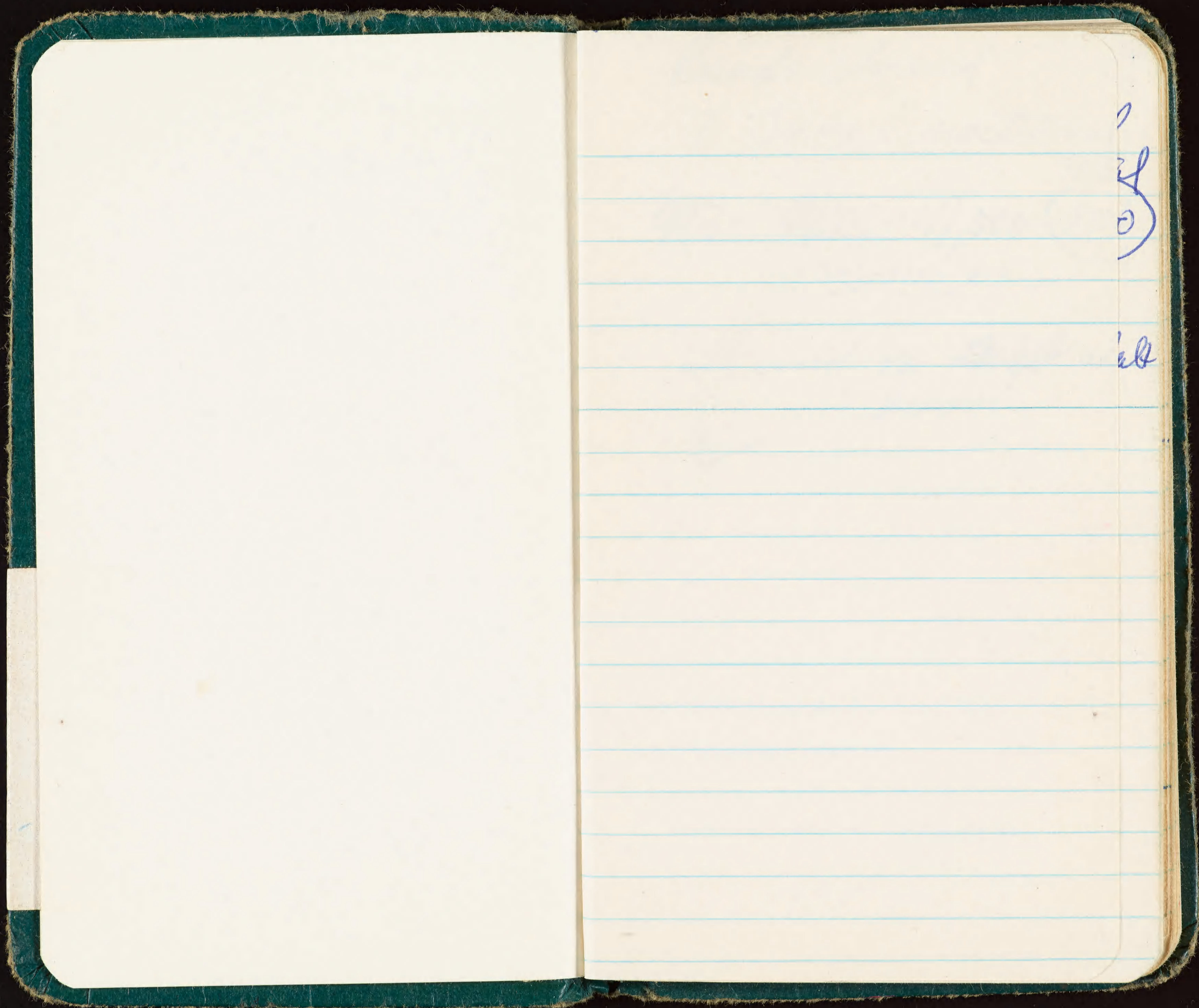
7-13 June 1967

Robert Ferguson

757-29001-16 RFB2
check

757-30201-16-RFB bleed
used on Lisianski
rest of string not used

Done
CPH



Bands closed

7 June - nocturnal

993 - 44001 - 41,000 ^{total} (1000)

44001 - 45000 R10.

all used on ~~all~~ adult
birds.

✓

Bands closed

7 June - nocturnal

705-14701-14800 - ^{Total}
100

all used on lt ph

✓ birds

Bands issued 8 June
divided

757 - 34901 - 35000	} Total 300
34600 - 34700	
✓ 34800 - 34900	

all bands used on Laysan
albatross chicks

New Bands.
8 June - WTS.

705 - 14201-300 (100)

all on WTS - light phase

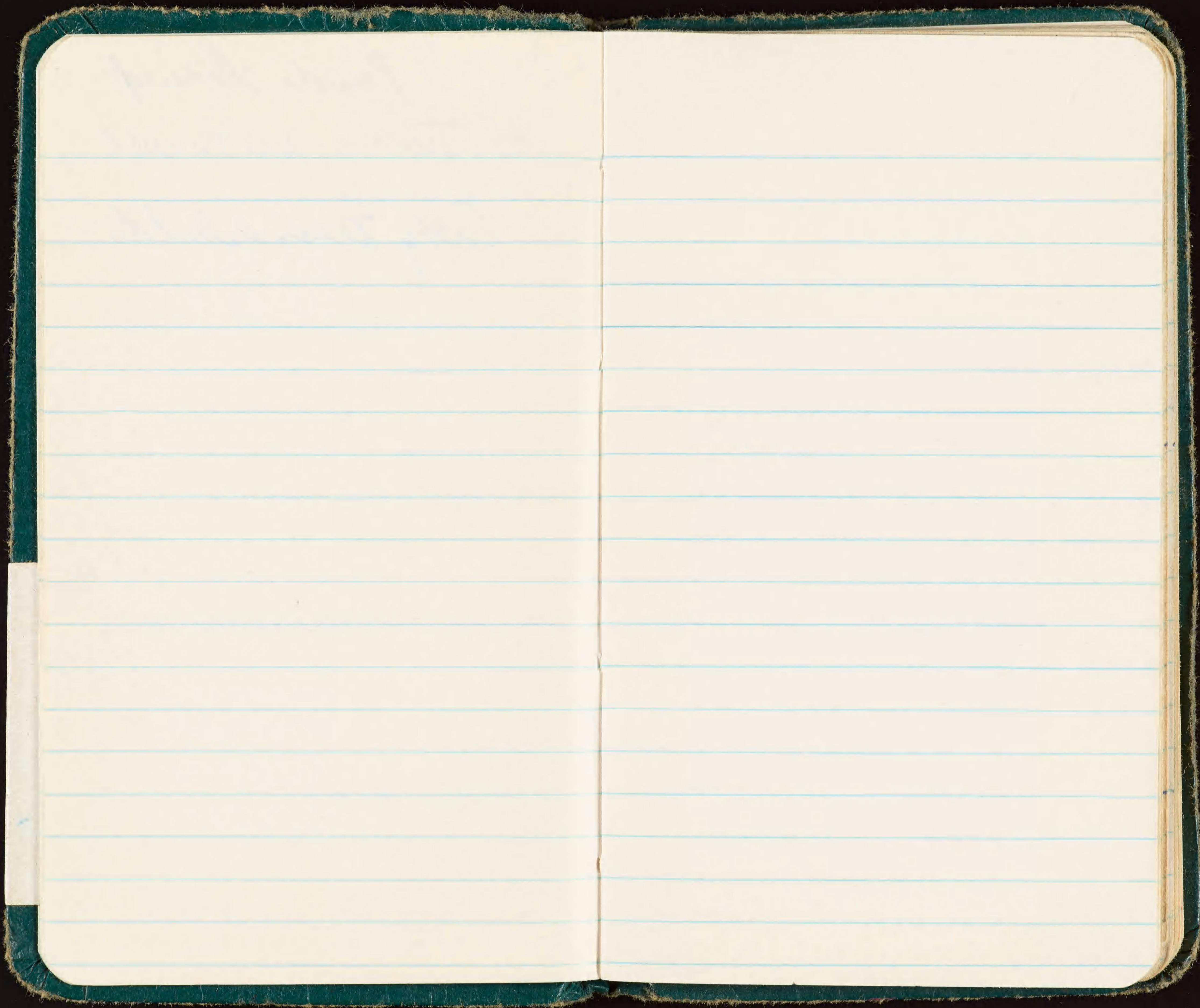
also

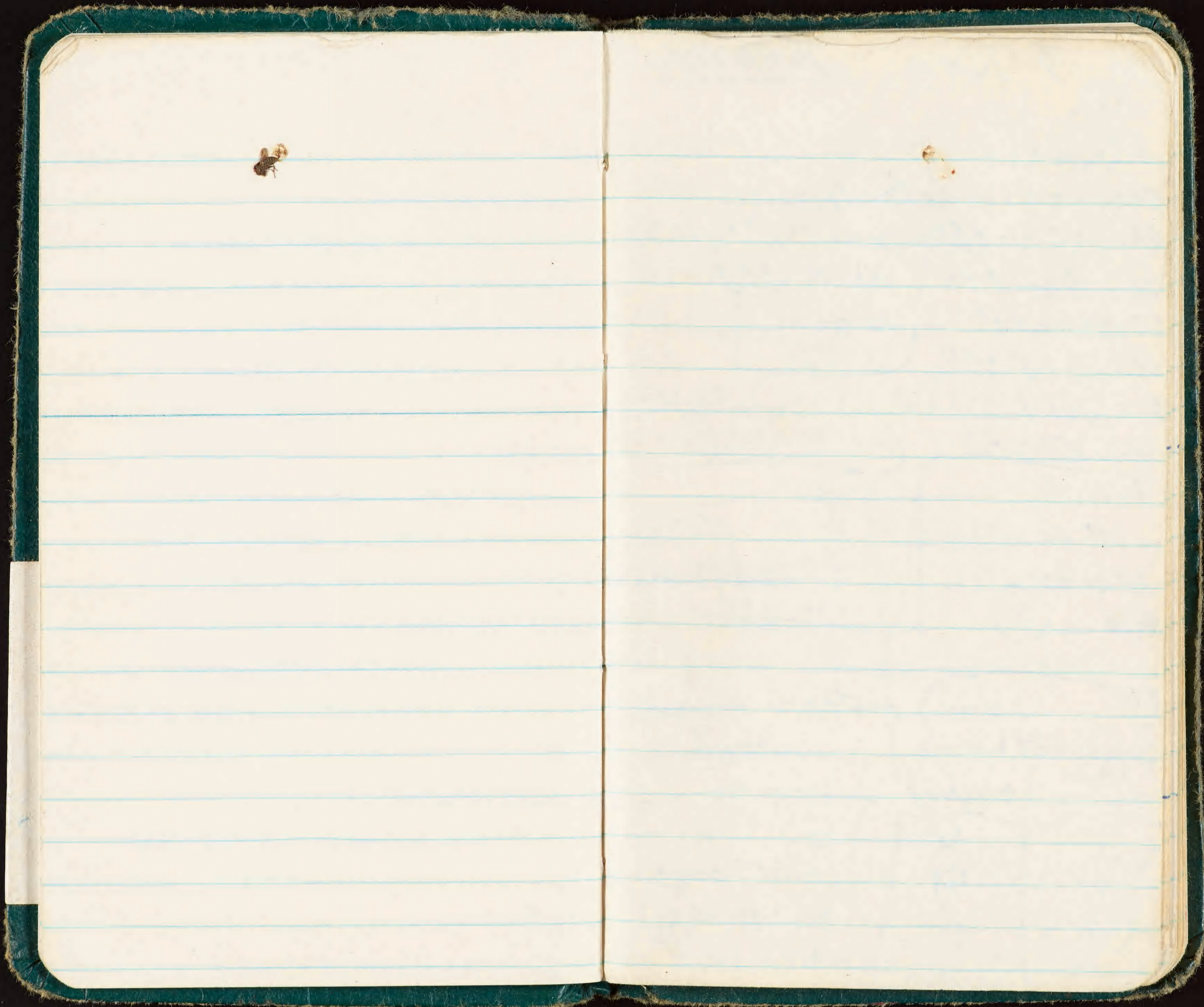
check Sera section
for BFB & G.F.
bandings.

Bands closed
10 June - Nocturnal

Sooty Tern adults

✓





7 June Island

SURVEY

LAYSAN.

1250
100

LAYSAN CH.

AD

50 + 50 + 50 + 50

|||||

50 + 50 + 50 + 50

|||||

50 + 50 + 50 + 50

|||||

50 + 50 + 50 + 50

|||||

50 + 50 + 50 + 50

+20 + 20

50 + 3887. + 50 + 60 + 50 + 50 + 50 + 50

50 + 2000 + 50

(1400 + 2000 + 3900 = 7,300)

BFA ch.

|||||

|||||

||||| (35)

FI

|||||

(1 chick) med-chick (10)

GBT

flying ch - 50 +

2480

+ am ch.

cratered around island

BTC

|||||

(5)

GP

|||||

||||| (8)

RT

||||| + 15 + 5 + 21 + 5

||||| + 20

|||||

(81)

FINCH

|||||

|||||

|||||

||||| + 10

RFB

smch - 2

AD - 5 + 20

BIP ch - dead

|||||

(8)

115

(25)

Teal

|||||

|||||

|||||

+ 12 + 11

(52)

BFB

1e - ||||| (20)

smch - |||||

||||| (30)

2e - |||||

(17) 2 chicks

CNT

1e - 25 + 50 = 75

HNT - Noort.

20 +

Coconut tree - 6 + chicks

GE

||||| + 12

1e - 11 + 35 smch

44 + 40 + 10 + 12 + 7 + 25 + 16

RFB

1e - 10 + 4 + 4 + 2 + 1 + 4

smch - 5 + 2 + 4 + 4

(21)

Laysan chicks

30' x 30' - 14 chicks ea.

(500' x 500') total area

$$\begin{array}{r} 700 \overline{) 250000} \\ \underline{180} \\ 700 \\ \underline{640} \end{array}$$

$$\begin{array}{r} 277.7 \\ 14 \\ \hline 11108 \\ 2777 \\ \hline 3887.8 \end{array}$$

1 Shrike (Snake Eyed) - Rock Pile

Sooty Tern

settling well in spots -
but generallyumpy -
some area birds were

just settling down
population of Est

on eggs

in air

200,000 ?

500,000 +

✓ADP

Return 7-June - day

✓
{ BFB- 508-57767-LFT Leg.

♀ on small chick
around lagoon

✓ADP

7 June - Sooty Tern

<u>893</u>	<u>823</u>	<u>903</u>
01678 ✓	18675 ✓	84680 ✓
08181 ✓		35436 ✓
08231 ✓		59488 ✓
04290 ✓		70472 ✓
14362 ✓		78660 ✓
06463 ✓		69191 ✓
08390 ✓		31881 ✓
01343 ✓		73958 ✓
00195 ✓	<u>883</u>	✓25177 ✓
12018 ✓	65113	✓26661 ✓
	65113 ✓	60187 ✓
	64171 ✓	46847 ✓
	65012 ✓	74476 ✓
		32849 ✓
		78625 ✓
		✓20399 ✓
		✓54126 ✓
		✓29197 ✓

(59)

✓ADP LAYSAN

Returns - nocturnal

00843	<u>903</u>	<u>903</u>
68367	84058 ✓	87018 ✓
68367 ✓	47201 ✓	34808 ✓
68842 ✓	41701 ✓	49665 ✓
10000	80123 ✓	
10000	71237 ✓	
68083 ✓	47771 ✓	
65088 ✓	✓34150 ✓	
	60170 ✓	
	45966 ✓	
	87031 ✓	
	38996 ✓	
	23068 ✓	
	51635 ✓	
	95519 ✓	
	88787 ✓	
	64498 ✓	
	42349 ✓	
	87270 ✓	
	52284 ✓	

✓ ADP
Laysan Teal

615-65555

BFB

✓ 757-89433- ♀ S.D.C.H.

✓ ADP

7 June - Sooty Tern

903

60891 ✓

88124 ✓

25077 ✓

84448 ✓

42435 ✓

52998 ✓

52830 ✓

61715 ✓

86695 ✓

42529 ✓

23220 ✓

22644 ✓

38298 ✓

54027 ✓

79897 ✓

87242 ✓

38485 ✓

40908 ✓

64034 ✓

53910 ✓

903

33737 ✓

64204 ✓

31764 ✓

27788 ✓

26897 ✓

50359 ✓

41312 ✓

68783 ✓

80325 ✓

65408 ✓

903

Returns 51+59 (110) layers

✓ ADP
adults

893

14914 ✓

00922 ✓

03982 ✓

05194 ✓

06775 ✓

10933 ✓

11039 ✓

843

66790 ✓

69582 ✓

64272 ✓

61547 ✓

64548 ✓

61022 ✓

67407 ✓

863

65675 ✓

74868 ✓

64067 ✓

66112 ✓

72491 ✓

71655 ✓

77443 ✓

823

7 June

WTS -

New Band

645 Returns

705-14798

→

06459

14771

10062

Returns (vs) Rebands

ALL on ADP ✓

8 June - Returns

903	903	893	863
43868	54333	02633	65818
45966	27159	06188	74763
45611	85785	12897	72076
24491	51204	05124	63716
75235	37138	13996	66106
57994	62519	02244	61574
27159	72918	07649	65113
89623	51954	02546	72679
52579	34381	06140	74682
42349	32194	10896	74801
53536	47186	05175	69104
39246	80828		
47181	35148		
24491	61430		
28182	49822		
60170			
34621			
60886			
52390			
29807			

(62 returns) ✓ ADD

Sooty Tern - diurnal

823	843
17967 ✓	62648 ✓
17928 ✓	68878 ✓
01193 ✓	66566 ✓

✓ADP

June - Returns

(3)

(4)

903
24979 ✓
79869 ✓
71057 ✓
59962 ✓
74979 ✓
86526 ✓
40403 ✓
32697 ✓
82142 ✓
22914 ✓
41436 ✓
84273 ✓
50957 ✓
76259 ✓
68232 ✓
86963 ✓
28552 ✓
24736 ✓
88107 ✓
32458 ✓

903

37910 ✓

59290 ✓

59190 ✓

88737 ✓

54656 ✓

24453 ✓

76947 ✓

38407 ✓

74230 ✓

69085 ✓

62947 ✓

50018 ✓

28661 ✓

893

08873 ✓

13880 ✓

10771 ✓

02791 ✓

863

60833 ✓

66837 ✓

60145 ✓

60949 ✓

64203 ✓

66760 ✓

64479 ✓

73561 ✓

(8)

(48 returns)

✓ADP

Term - Journal

(3)

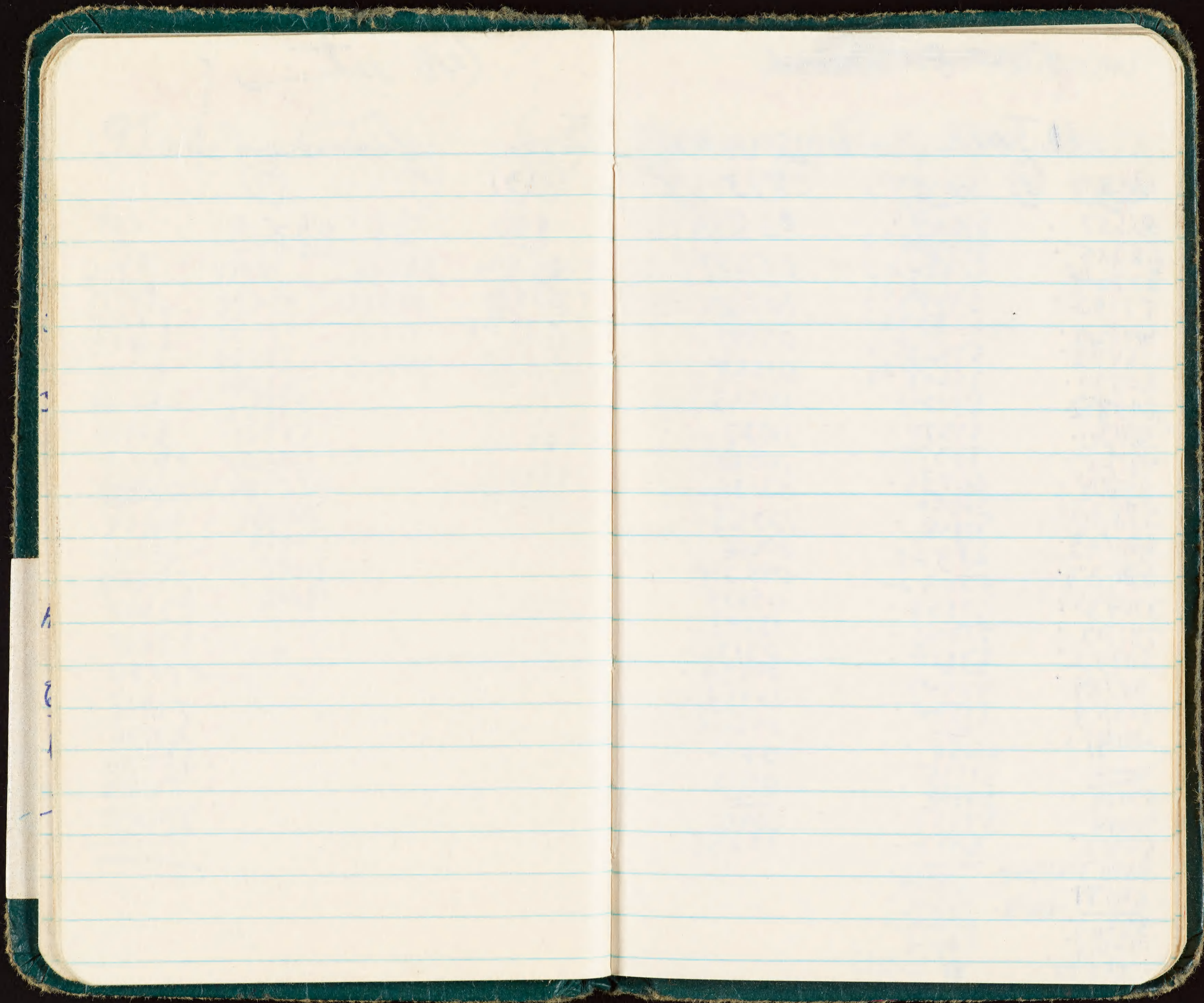
843

65810 ✓

66969 ✓

63508 ✓

823



~~First 500 Bands~~
ALL on ADP ✓

10 June - NOCTURNAL

903

(60)

903

893

(22)

81537

66335

30964

87192

48068

26493

30877

64232

38420

48175

29804

57833

66403

52023

37043

78128

20792

44989

31559

43141

53108

40894

85317

55067

54581

39364

42018

42040

84654

80524

25789

54073

65339

59902

35608

89024

84377

73377

66736

20050

37848

67329

57032

67859

71376

53515

70547

55500

41064

51535

24506

37551

76378

54026

72246

64482

74857

24675

02588

05688

10760

05917

01569

01513

14127

14063

03136

12353

00666

09324

09839

13396

03136

09839

12732

05644

12256

01513

03400

13055

ALL on ADP ✓

LAYSAN

returns Sooty Tern ADULTS

863

(11)

843

(1)

823

65869

69187

66922

66576

63601

60565

68374

63221

74477

64045

60420

67572

65132

69558

69230

68309

61968

68740

943

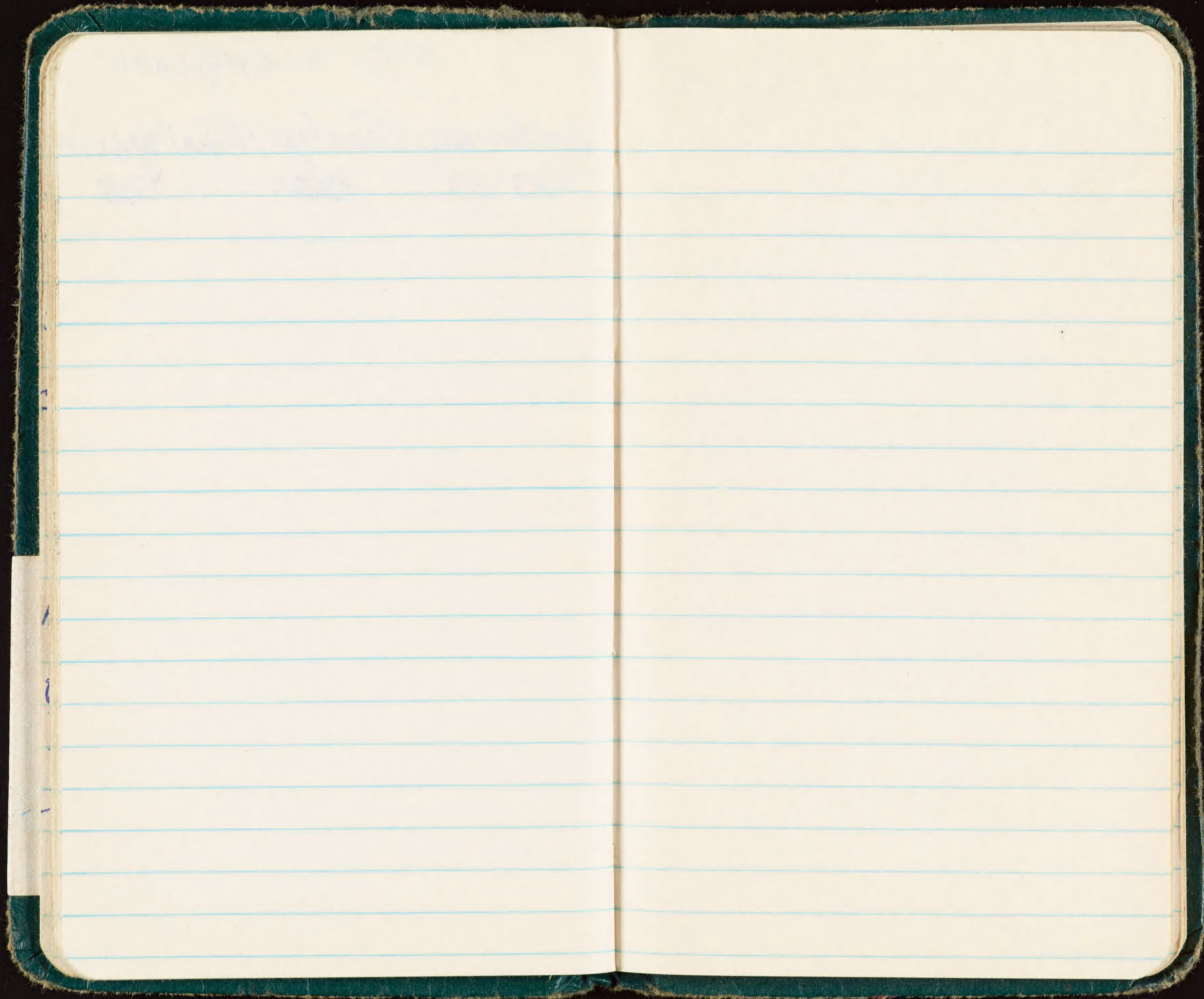
18114*

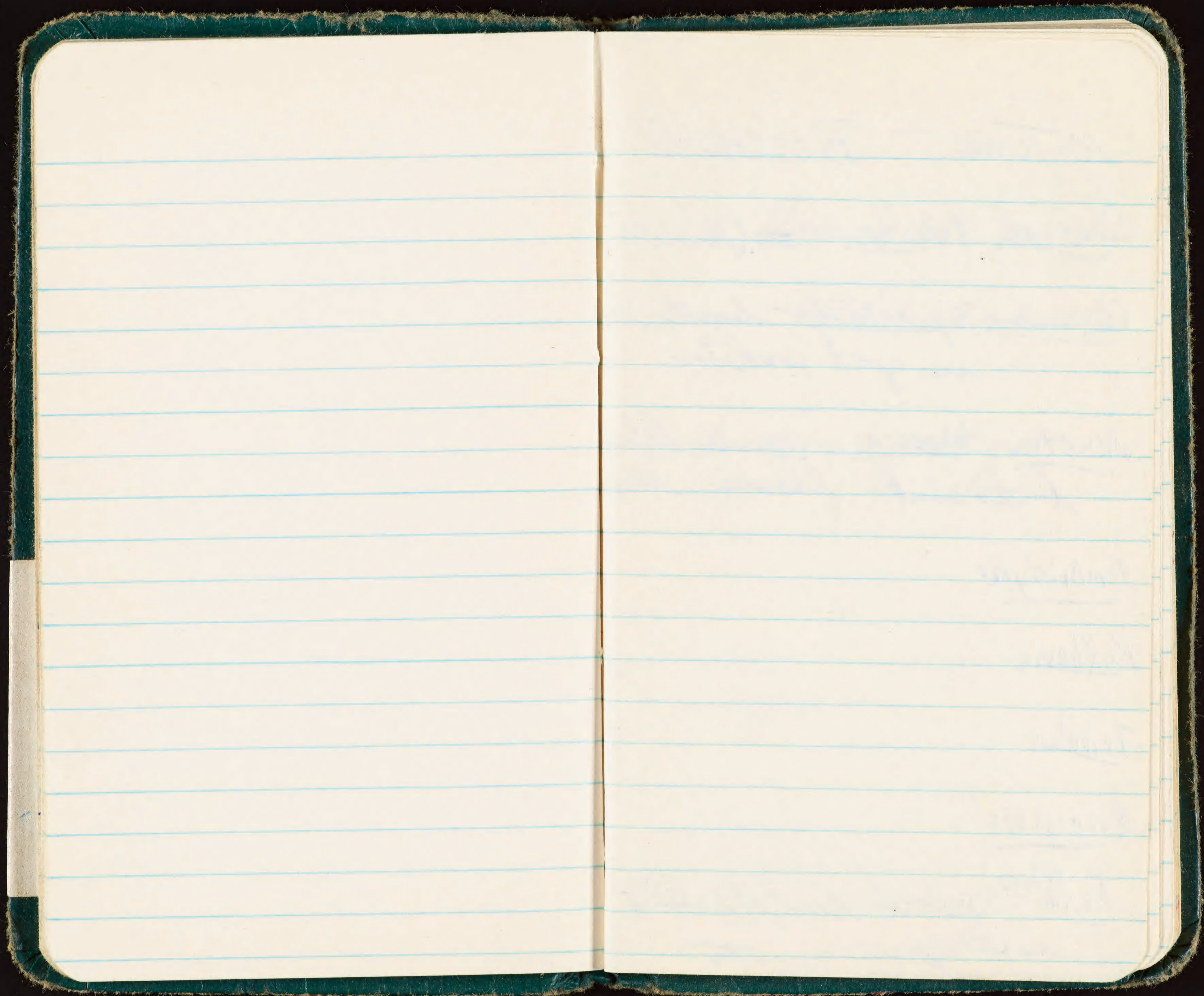
SECOND 500

14 June - NOCTURNAL
903 903 893

LAYSAN

returns Sooty Tern ADULT
863 843 823





10 JUNE - Botanical Survey

Scaevola taccada - ~~is~~ (small white flowers) 2-3½' high

Casuarina equisetifolia - directly behind syn - 15' high - 35' diameter in good condition

Nicotiana glauca - common behind Scaevola - going to seed - some buds and flowers remain. (pink) 3-4' high.

Fimbristylis

Boerhaavia

Tribulus

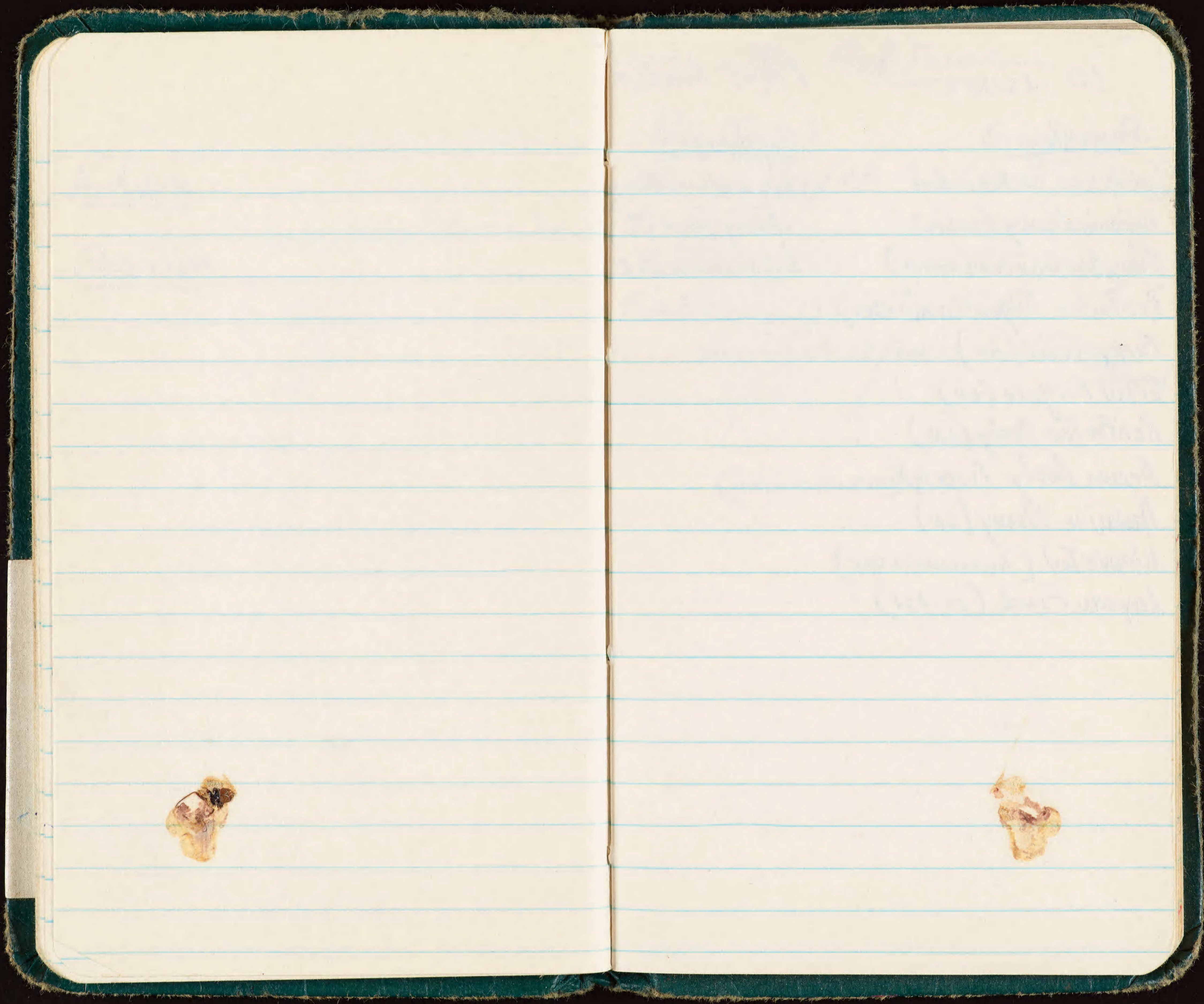
Eragrostis

Palm (Cocos) - North end of island with green - nuts

Tree (ca) - 20-30' high -

Portulaca

Sesuvium



10 JUNE

Plant Utilization By Avifauna

Scaevola

(under or on branches)
Common Noddy (under)
Gray Backed Tern (under)
Red Tailed Tropic Bird (under)
Fairy Tern (on)
Great Frigate (on)
Red Footed Booby (on)
Brown Booby (roosts) (nests around area)
Hawaiian Noddy (on)
Wedge Tail (burrows under)
Laysan Finch (midst)

Casuarina

Hawaiian Noddy
Fairy Tern (R)
Laysan Finch (R)

Palm (Cocos)

Hawaiian Noddy (N)
Frigate (R)
R.F.B. (R.)
Finch (foraging)
WTS (under) dried fronds

Eragrostis

WTS (under clump)
Finch (N) clump
Sooty T - around ^{base}
G.B.T. " "
C.N.T. uses for ^{nest} material

Tribulus

G.F. - For nest material

Portulaca - used by Brown Booby
for nest.

Scaevola used by R.F.B.
for nest.

Bush at N end

R.F.B (N) 5 or 10 nests - 4-5' high
daysan Finch - numerous in its branches

Species Found Laysan
7-11 JUNE '67.

Great Frigate

Brown Booby

Blue Faced Booby

Red Footed Booby

Laysan Albatross

Black Footed Alb.

Wedge Tail

Christmas Is.

Bonin Is.

Bulwer's

Common Noddy

Hawaiian Noddy

Fairy Tern

Sooty Tern

Laysan Teal

Laysan Finch

Gray Backed Tern.

Bristle Thigh

Golden Plover

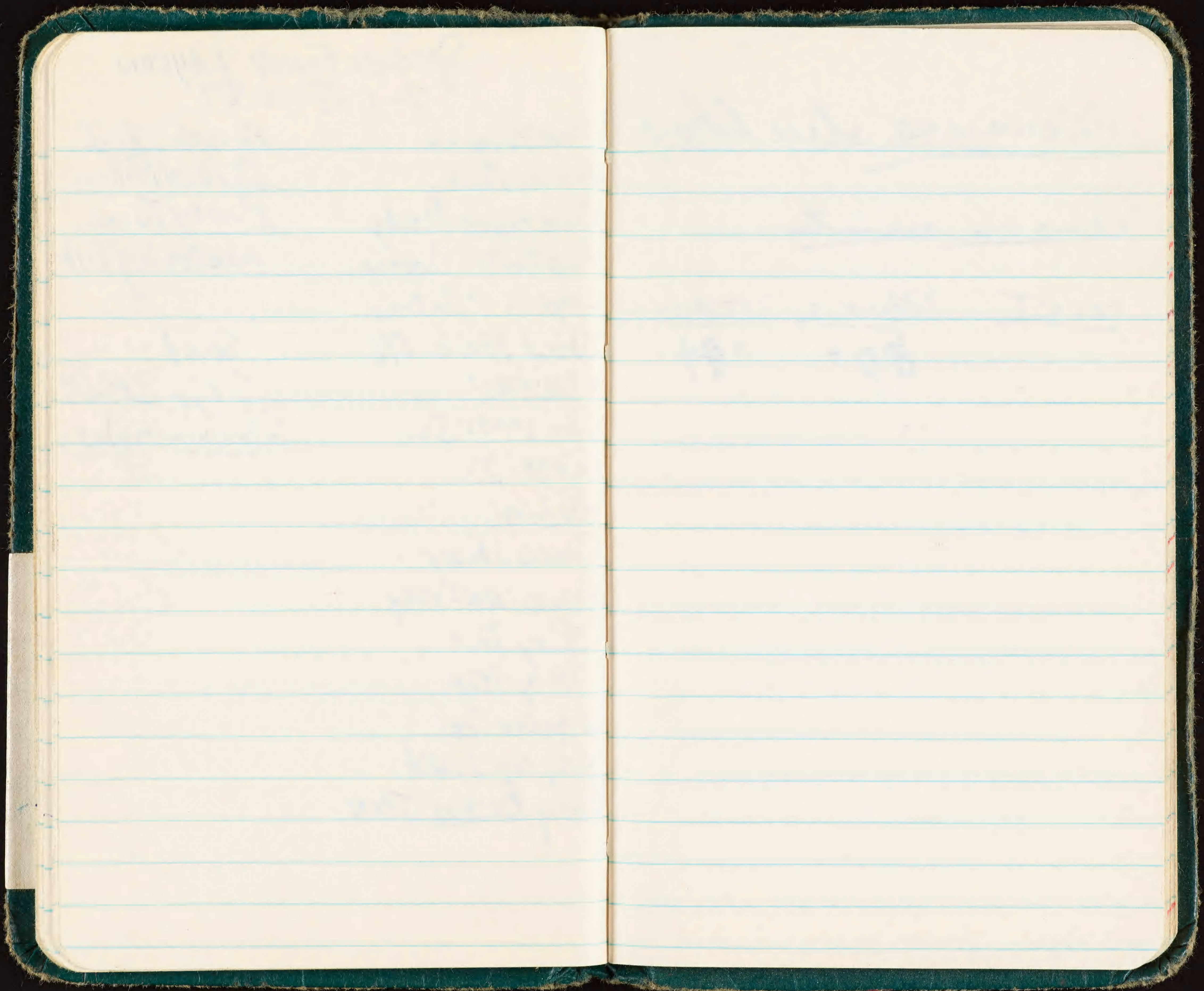
Ruddy Turn.

Wandering Tatt

Seal

S. Eye Skink

Chelonia mydas



Casuarina tree behind

sign -

19 June '67

Anous minutus

COUNT

ADULTS

CHICKS

NESTS

EGGS

80+

44

100+

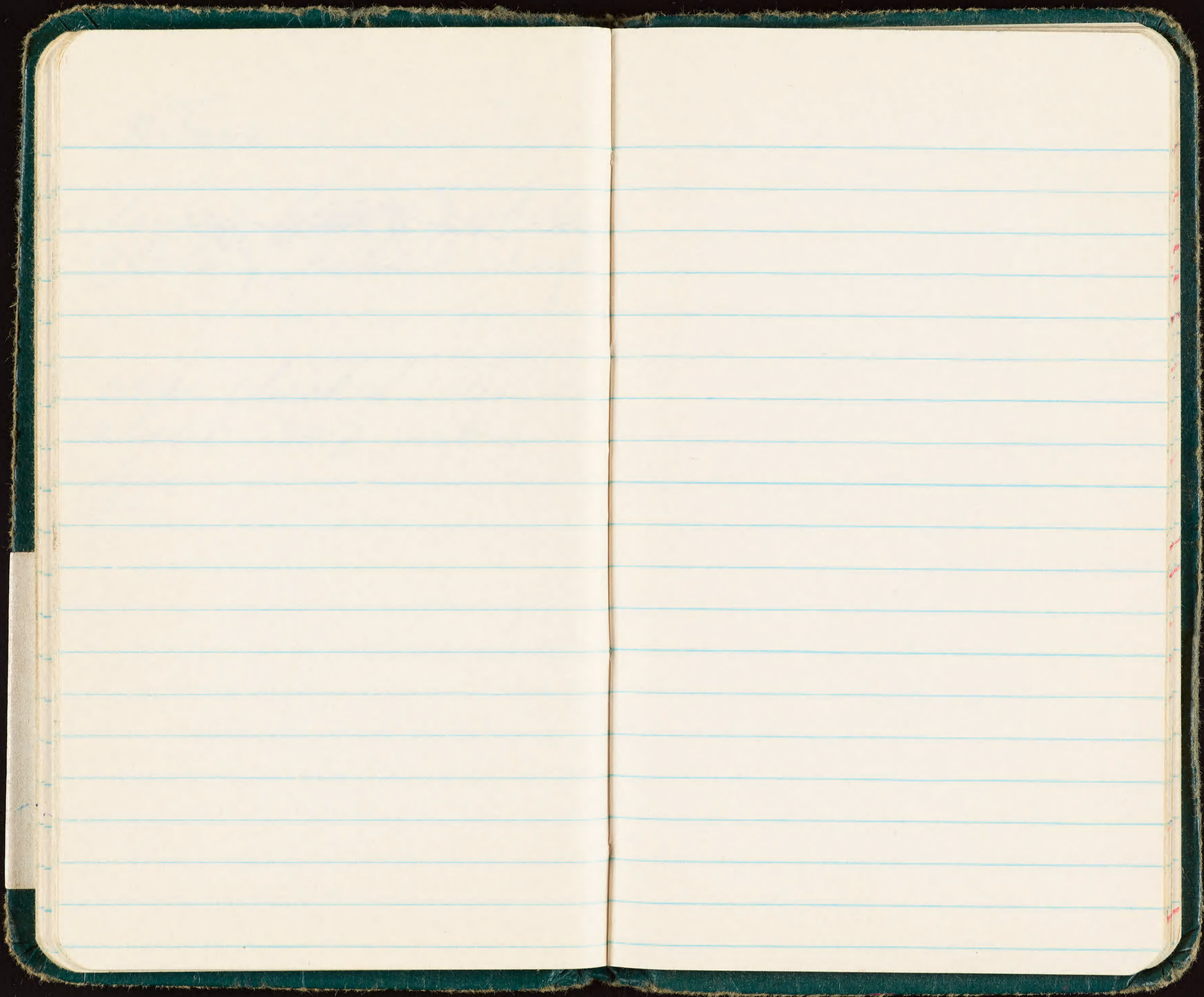
1

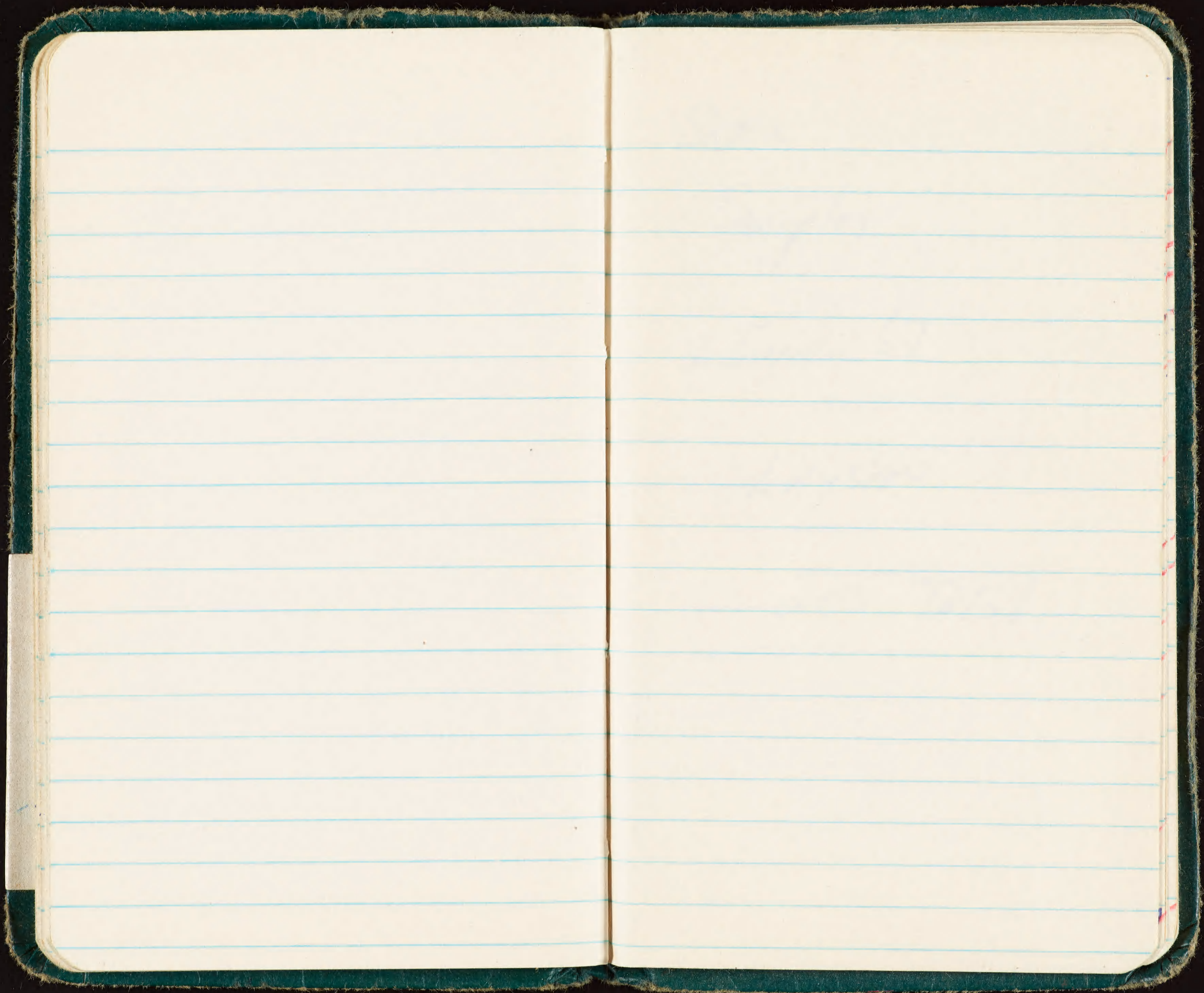
11 June -

© Laysan frigate predation
@ colony behind camp.

on Sooty Tern eggs

areas checked showed
about 30% later
eggs





SERA

Samples

8 June '67

LAYSAN

200 Total

1	BFB	adult	F
2			F
3			F
4			M
5			F
6			U
7			M
8			F
9			F
10			M
1			F
2			M
3			M
4			M
5			M
6			F
7			F
8			M
9			U
20			F

VADP

roost.	New Band 757-30361	✓
	62	✓
one egg	757-29015	✓
Prob - 587-80454	587- 08454	✓
	63	✓
	757-29014	✓
	64	✓
	65	✓
	587- 80453	✓
	66	✓
2 eggs	67	✓
	587- 80452	✓
	68	✓
	69	✓
	70	✓
	71	✓
	72	✓
	73	✓
	74	✓
2 eggs	767- 4297	✓

VADP

21 BFB adult F
2 F
3 M
4 M
5 M

6 Great Frig. M

7 SA
8 F

9 M

30 SA

7 F

32 M

33 F

34 F

5 F

6 F

7 F

8 F

9 K

40 S

75 ✓

nakedchuck 76 ✓

77 ✓

legs 78 ✓

79 ✓

Roost. New Band 587-83844

45

46

47

48

49

50

51

52

53

54

55 ~~KNOW~~

56

57

58

#63 Female not Bled

41	Great Frig.	adult	M	Roost	587-837	59
2	1		F			60
3	1		m			61
4	1		m			62
5	1		m			64
6	1		m			65
7	1		m			66
8	1		m			67
9	1		m			68
50	1		m			69
1	1		<u>m</u>			<u>70</u>
2	1		m			71
3	1		m			72
4	1		m			73
5	1		m			74
6	1		m			75
7	1		m			76
8	1		m			77
9	1		m			78
60	1		m			79

61 Great Frig

2	1	M
3	1	M
4	1	F
5	1	M
6	1	M
7	1	M
8	1	M
9	1	M
10	1	M
11	1	M
12	1	M
13	1	5 F
14	1	M
15	1	M
16	1	5 A
17	1	M
18	1	M
19	1	M
20	1	F

Roosting

587-838 80

81
82
83
84
85
86
87
88
89
90
91
92
93
94
<hr/> 95
96
97
98
99

101 Great Frigate

SA

Roost

New Band 757-30400

757-30401

2		SA			
3	1	M		NB	02
4	1	M			03
5	1	F			04
6	1	F			05
7	1	M			06
8	1	M			07
9	1	M			08
110	1	M			09
1	1	M			10
2	1	M			11
3	1	M			12
4	1	M			13
5	1	M			14
6	1	M			15
7	1	F			16
8	1	M			17
9	1	SA			18
120	1	M			19

121 Great Frigate

M

Roost

New Bang 757-3-0420

2

F

21

3

M

22

4

M

23

5

F

24

6

~~F~~

25

7

M

26

8

F

27

9

F

28

130

M

29

1

M

30

2

F

31

3

M

32

4

F

33

5

M

34

6

M

35

7

M

36

8

M

37

9

~~M~~

38

140

~~M~~

39

~~M~~

38

Band #

141 Great Frigate

F

Roost:

40

2

m

41

3

F

42

4

F

43

5

m

44

6

m

45

7

F

46

8

m

47

9

m

48

150

m

49

1 WTS

u

New band 705- 14201

2

02

3

03

4

04

5

05

6

06

7

07

8

08

9

09

100

10

161 WTS

2 1

3 1

4 1

5 1

6 1

7 1

8 1

9 1

170 1

1 1

2 1

3 1

4 1

5 1

6 1

7 1

8 1

4 1

180 1

New Brand. 705 - 142 11

12

13

14

15

16

17

18

19

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27

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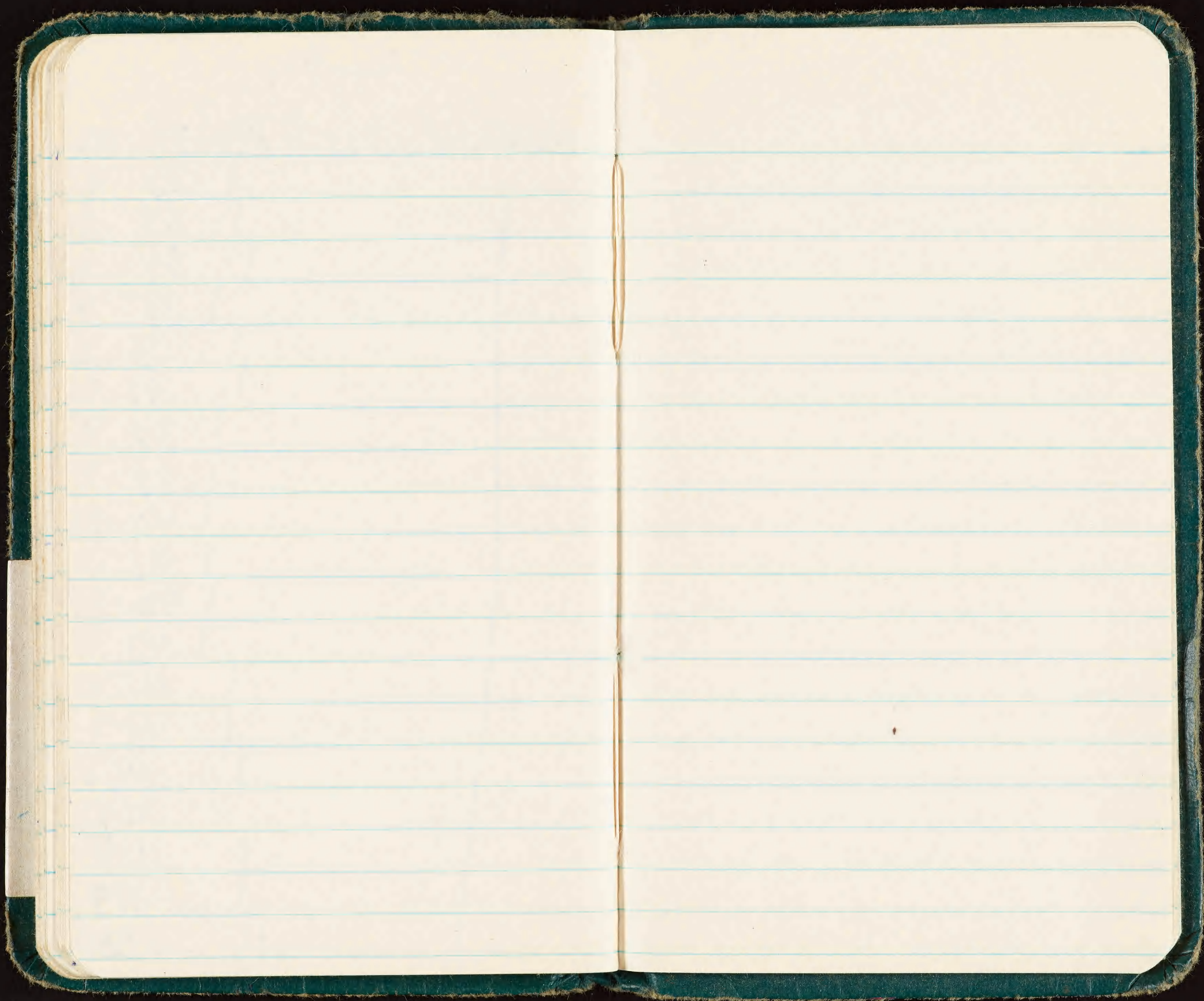
30

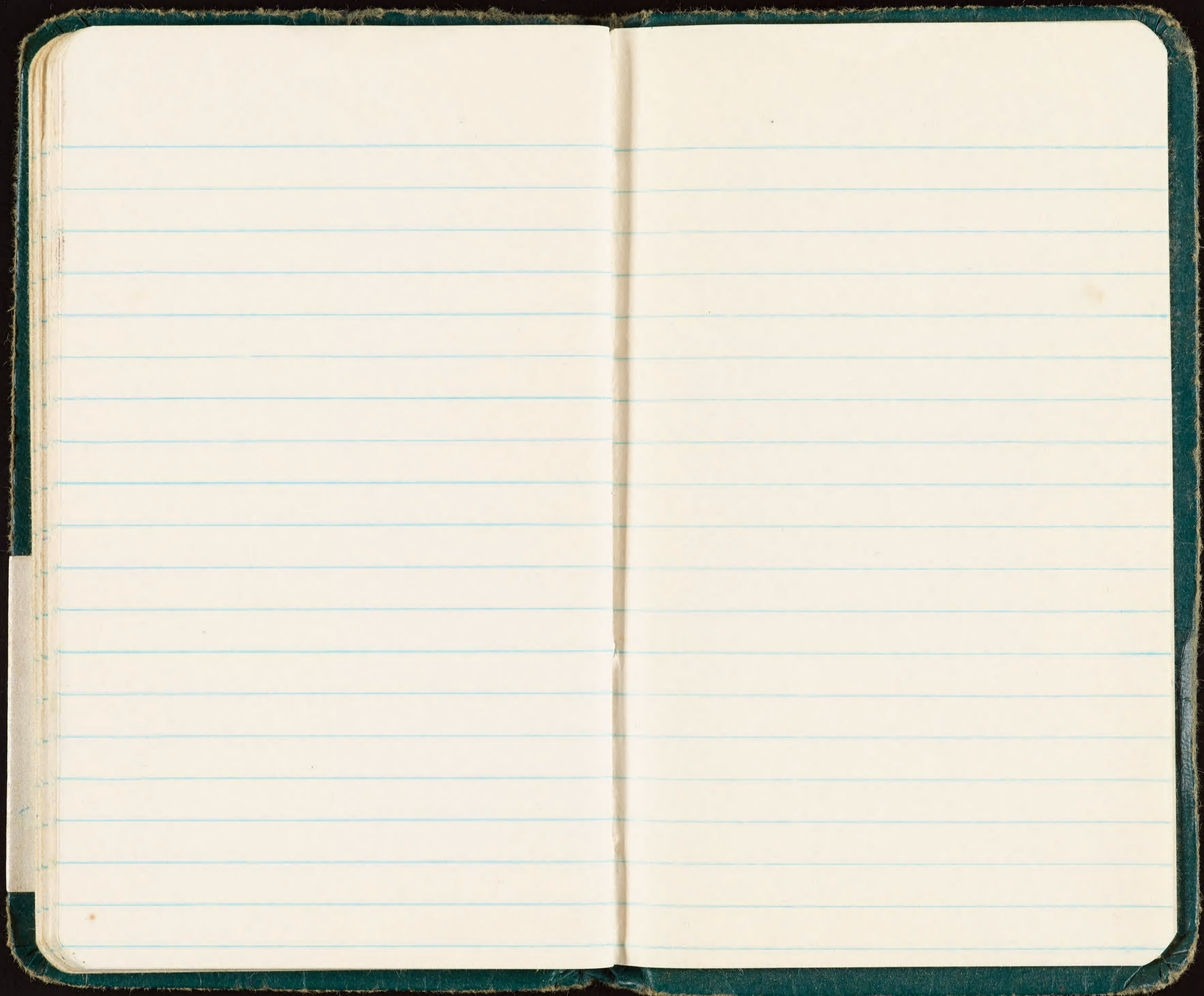
181 WTS

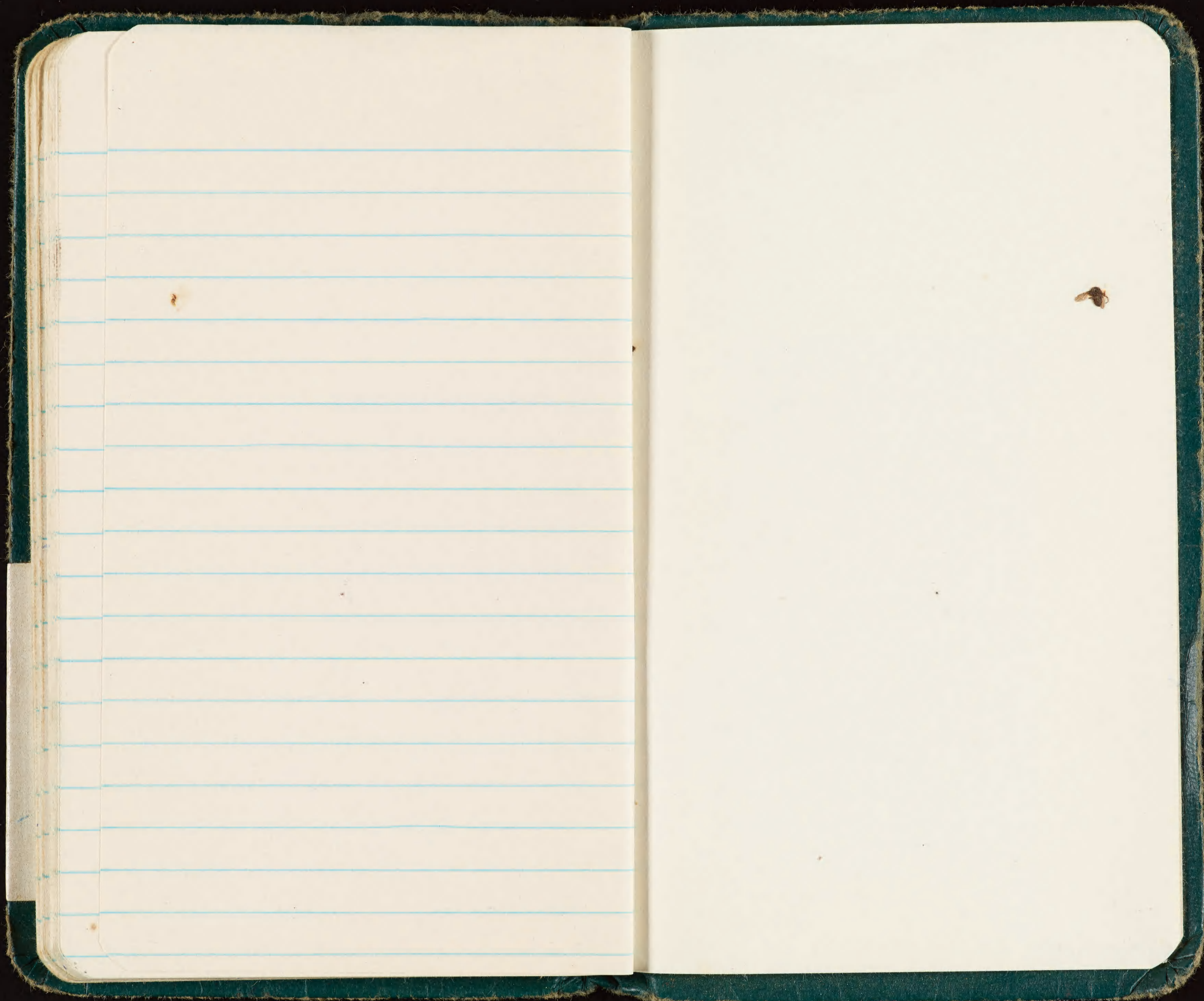
2	
3	
4	
5	
6	
7	
8	
9	
190	
1	
2	
3	
4	
5	
6	
7	
8	
9	
200	

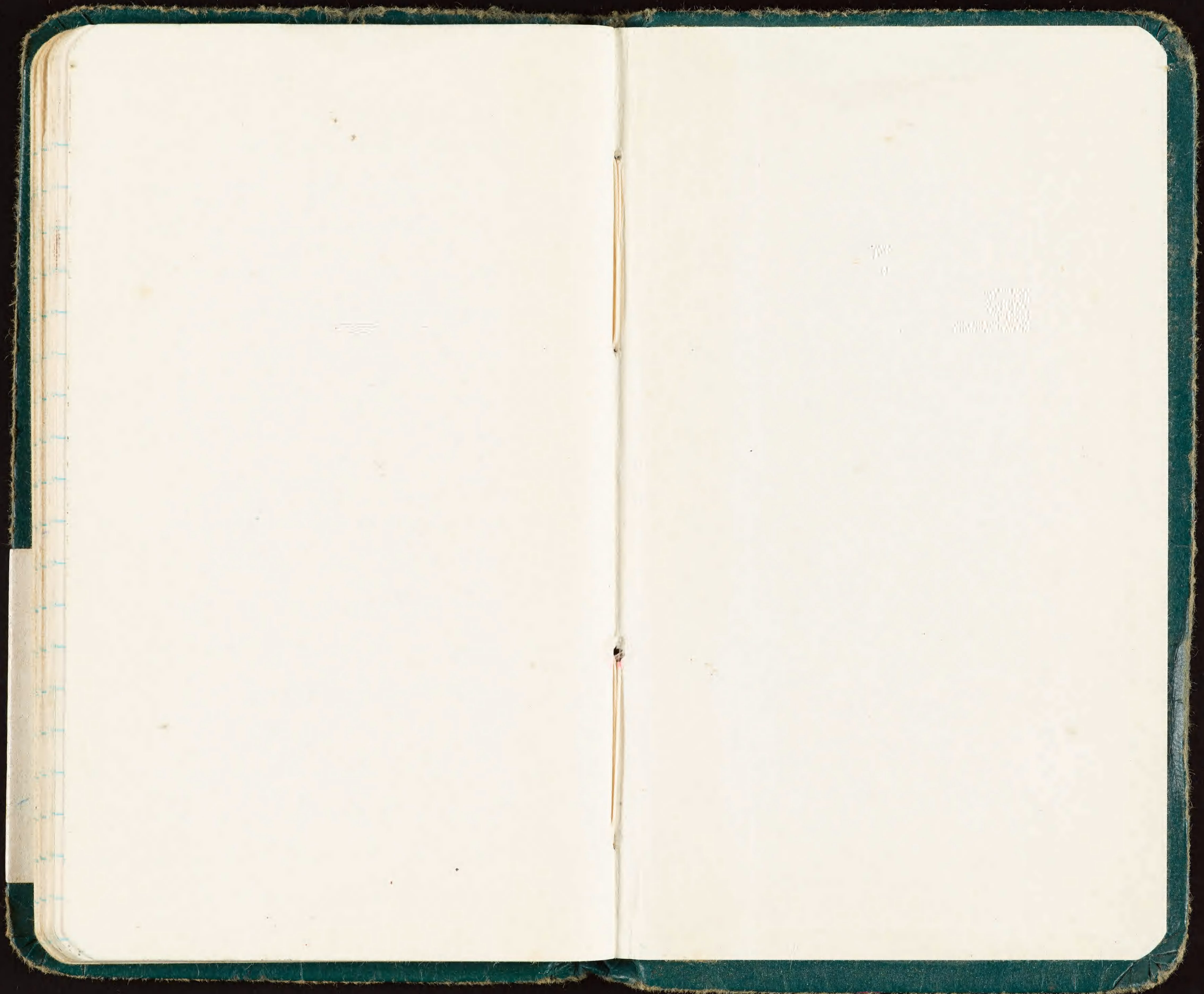
NewBand 705 - 142 31

32
33
34
35
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39
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41
42
43
44
45
46
47
48
49
50









7530-22
FEDERAL SUPPLY SERVICE

Memoranda

Leewards # 19

Laysan Island

7-13 June 1967

D. L. Stadel

10

Done
CMT

Great Frigate

OE	SN	SD	MD	LD
4-8-22	2-6	3-7	4-2	
6-5	2-3	15-5		
10-3	1	10-5-5		
15-15	2-3	5-8		
5	2	7		
15	-4	10		

108	25	80	6
-----	----	----	---

7 June Nest Survey

BT Booby

OE	ONE	SNC	SDC	MD	LD
II	IIII	IIII	IIII	II	
IIII	IIII	IIII	IIII		

12

15

12

4

RFB

OE	SNC	SDC	MD	LD
II	II	II		
IIII	IIII	IIII		
IIII	IIII	IIII		

18

3

8

Brown B

OE	SN	SD	MD	LD
----	----	----	----	----

RTTB

OE	SD	MD
----	----	----

5

Comm N
~~5-30-50-50-20~~

155

Haw N Roosting
500

OE 5

SD 5-20

MD 20

LD 20

Fairy T
OE - 5

GBT
Flying Imm
Eggs

BF Albatross

1-20-70-50-40-50-100

50-100-100

580

Laysan

50-50-50-50-50-50-50-50

50-50-50-50-50-50-50-50

50-50-300-100-50-100

50-150-100-50-100-50

~~2000~~ - 100

1150

2000

800

~~3950~~

2350

GP

RT

BTE

WT

Tea/

Sooty Tern
Preparing

Sitting
1000-1000

~~100 810000~~ $\frac{8}{20}$

Nests
1000-1000

$$\begin{array}{r} 144 \overline{) 540000} \\ \underline{432} \\ 1080 \\ \underline{1080} \\ 720 \\ 720 \end{array}$$

Southern
400 yds long 100 wide
sm ch at NW end
Best sites around Eragone

~~300 x 100~~ mostly eggs
~~at~~ interval Density follows
300 x 50

2000 x 25
12 ft density

24

$$\begin{array}{r} 2000 \\ 30 \\ \hline 90000 \\ 9 \\ \hline 540000 \text{ sq ft} \\ 81 \end{array}$$

Alb Density

Laysan 170
50 Dead

BFA - 120
20 Dead

150 X 50

7500

~~300 Laysan BFA 10~~

~~60 X 50~~

220
146

360

208

7508
720

300.0
2880

Sooty Tern

Bands Issued
993 - 46001 - 46500
46501 - 47000

✓ Nesting Birds

✓ Wedgetails - No Status
705 - 14901 - 15000

705 14984 New Band on
635- 19525 old Band

✓ADP

Sooty Tern

Return

(18)

903

- 36717

(20) E

56044 ✓

~~esting Colony~~

77601 ✓

. 86304 ✓

66905 ✓

. 88243 ✓

45944 ✓

. 79698 ✓

87437 ✓

. 81785 ✓

54869 ✓

. 58287 ✓

45892 ✓

. 536345 ✓

66449 ✓

. 69802 ✓

68016 ✓

. 37362 ✓

68946 ✓

. 47288 ✓

70493 ✓

. 24837 ✓

59817 ✓

. 57727 ✓

67356 ✓

. 81173 ✓

76240 ✓

. 49306 ✓

80743 ✓

. 51616 ✓

50845 ✓

. 12386 ✓

89535 ✓

. 25438 ✓

63356 ✓

. 30295 ✓

73368 ✓

. 47890 ✓

✓ADP

(7)

863 -

675

88

1604

63 ✓

~~14779~~

658

84 ✓

63606 ✓

73

905 ✓

68176 ✓

654

97 ✓

70481 ✓

:

893 -

141

79 ✓

08

85 ✓

023

72 ✓

07569 ✓

:

843 -

655

27 ✓

08

64201 ✓

:

82173 ✓

:

61473 ✓

:

823 -

13

990 ✓

100

44 Bonin Islands

~~705 149 84 New~~
~~635 195 25 Old~~

[illegible][illegible]

Comm

Noddy

under	Association						
	Sca	Eng	Turb	Boar	Pony	Tram	onion
Eng		✓	✓				
Sca	✓	✓		✓			
Eng		✓	✓	✓			
11 on	✓	✓			✓		
11	✓	✓			✓		
11 on		✓	✓	✓			
11	✓	✓	✓	✓			
11 on	✓	✓			✓		
11	✓	✓				✓	
11	✓	✓	✓	✓			
11	✓	✓	✓				

Nest	Mat					
		Eng	Sca	Boar	Turb	Iron
✓	✓	✓	✓	✓	✓	
✓	✓	✓	✓			✓
✓	✓	✓	✓			
✓	✓	✓	✓			
✓	✓	✓	✓			✓
✓	✓	✓	✓			✓
✓	✓	✓	✓			✓
✓	✓	✓	✓			✓

Grey backed Tern

under

11

Ipom

11

11

11

11

Erag

Trub

Scare

Ipom

Gh/14

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

Sooty Tern

Density

1.5 - 5ft	1.5 - 8ft	500 - 10ft	500.5 - 10ft
1 8 20	101	5	10
8	8	8	15
3	8	8	8
4	8	10	6
1	10	8	1.5
3	8	8	10
6	6	8	10
2	6	8	1.5

Density could increase 4 times

70
54
71
124
319

7.2
44
319
308 118

40000

9

360000

49438

7.2 | 360000

292

680

648

320

292

280

216

640

Alb Density

40 x 80

100 - 100 - 100 - 100

150 x 40

100 - 100 - 100 - 100 - 100 - 100

100

150 x 90 -

100 - 100 - 100 - 100 - 100

100 - 100 - 100 - 100 - 100

100 - 100 - 100 - 100 - 100 - 100

2700 Alb in

22700 sq yds

One Nest per 8.4 sq yds

3200

6000

13500

22700 sq yd

2700 $\overline{) 22700}$ 8.40
 21600
 11000
 10800
 2000

2700 $\overline{) 22700}$ 8.40
 21600
 11000
 10800
 2000

2700 is 25% *

2700
25

X

100

3600
 $\overline{) 270000}$
 225
 450
 0

RFB

Nest Mat

04	SK. B.	Boer	Eeg	Ipom	H	trip
	11	✓	✓	⊙	35	✓
	11	✓	✓	✓	3.5	✓
	11	✓		✓	4	✓
	11	✓		✓	4	✓
	11	✓			4	✓
	11	✓	✓	✓	4	✓
	11	✓	✓	-	4	✓
	11	✓	✓	⊙	3	✓
		✓			3	✓

111

111

$\frac{13}{14}$
5 7

150
~~200~~ wide 450 long
continuous

100 wide x 400 long
Density 9.1 ft

8	2	5	15
2	8	10	20
3	4	8	15
8	20	15	20
2	8	20	25
2	5	10	15
8	5	20	15
1	10	15	15
3	2	10	20
5	6	8	10
10	3	10	8
3	8	6	20
45	81	141	208

$\frac{89}{52} \overline{) 475}$
468

8 June

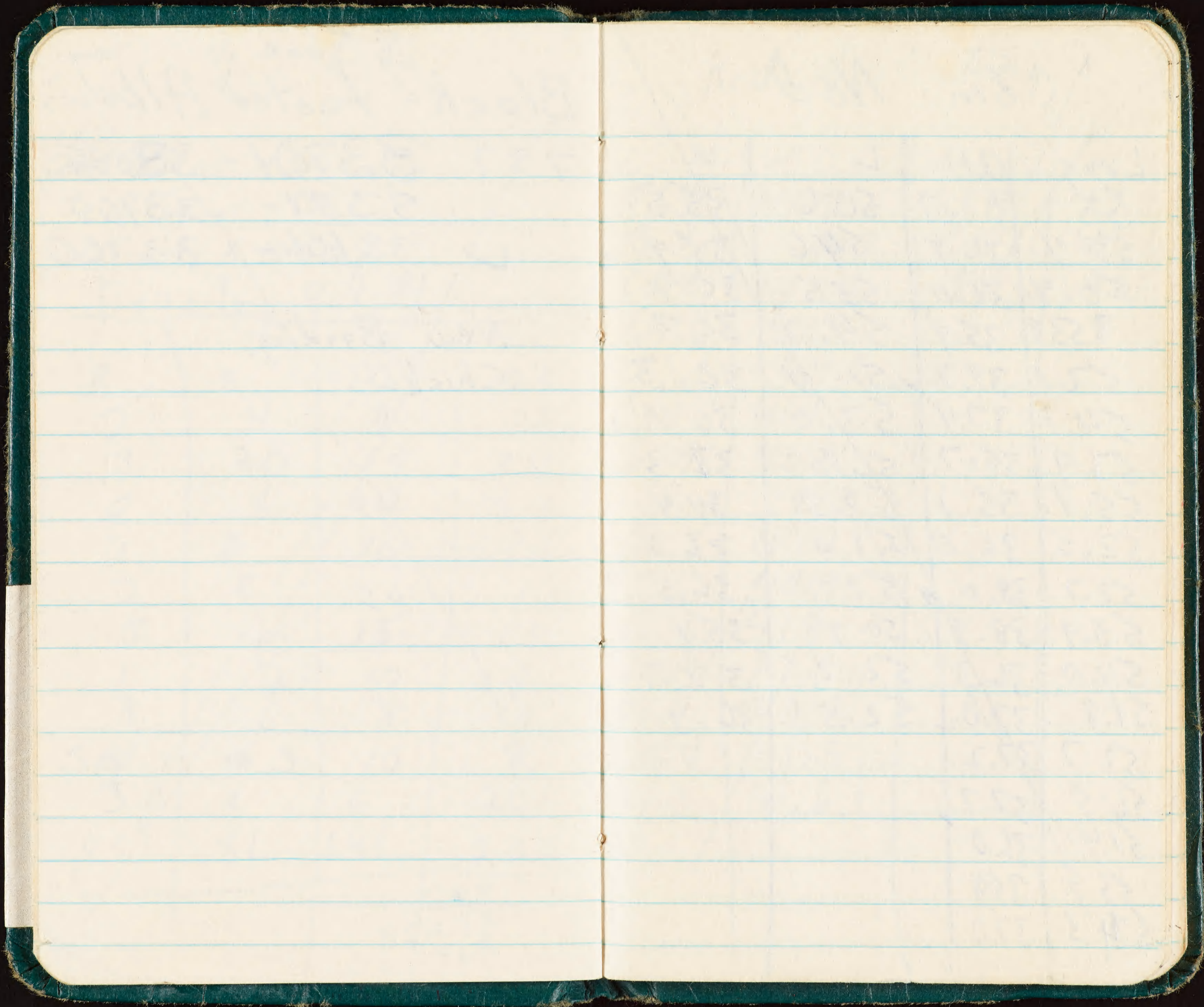
Black-footed Albatross

757 33701 - 33800

33801 - 33900

✓ 33601 - 33700

New Banding
Chicks



Com No 2

Leng	W	L	W
55	37.7	50.6	35.5
55.4	36.4	54.6	35.9
50.4	36.0	53.5	36.7
53.9	35.9	54.2	36.7
52.1	39.7	51.4	36.3
54.1	37.4	53.0	36.4
53.9	35.7	56.8	37.3
55.1	35.1	52.5	34.4
52.5	36.0	51.4	36.5
52.7	38.0	52.7	36.5
53.9	38.9	50.9	35.1
54.9	36.3	52.2	37.3
51.8	37.0	52.5	36.3
52.7	37.2		
56.5	37.7		
51.4	36.0		
53.9	35.9		
54.5	37.0		

Red-foot Pig

L	W	L	W
56.9	41.4	61.8	43
58.2	41.7	61.7	40.1
65.4	42.4	66.1	43.2
64.7	41.1		
62.1	49.8		
61.0	41.1		
67.9	40.3		
58.1	39.4		
61.3	41.4		
63.0	40.0		
66.3	41.9		
59.9	37.1		
64.6	40.2		
58.8	41.3		
66.5	41.6		

Frug 899

Red-foot Return

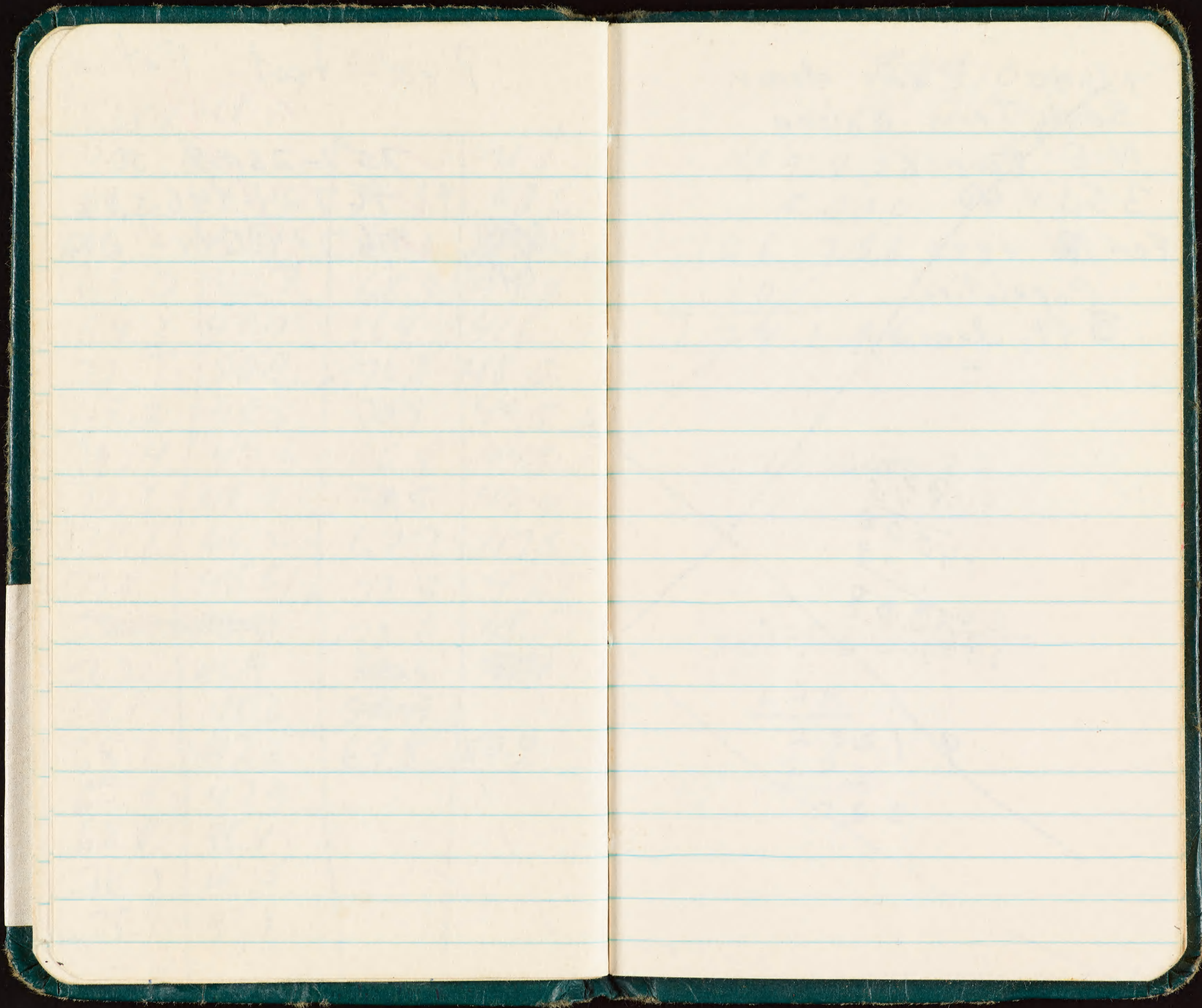
~~VADP~~

✓ 757-28108 SDC

✓ 767-41456 SNC

66.4 ✓ 767-41094 OE

L	W	L	W
69.6	47.3	73.9	47.6
69.2	48.5	68.2	47.0
68.0	47.7	68.9	47.4
59.3	49.9	66.9	46.6
72.7	50.9	70.7	48.6
69.3	48.5	70.9	49.5
71.4	47.6	66.9	44.9
72.3	48.1	70.5	47.4
74.1	49.2	67.7	47.5
79.0	45.8	72.3	47.1
52.7	38.0	70.1	48.5
56.2	46.9	61.3	41.1
54.1	48.3	50.9	
68.2	47.3	69.8	50.9
67.8	47.9		
68.3	48.4		
70.7	46.5		
78.4	43.1		



9 June came down
 Sooty Tern colony
 NE corner,
 350 x 40
 Few ~~no~~ eggs
 Copulation
 3 ft density

$$\begin{array}{r}
 350 \\
 46 \\
 \hline
 14009
 \end{array}$$

$$\begin{array}{r}
 126000
 \end{array}$$

91

800,000

16

49438

8000

106758

10

174196

1750000075

x

100

$$\begin{array}{r}
 233333 \\
 95 \overline{) 750000} \\
 \hline
 150
 \end{array}$$

150

250

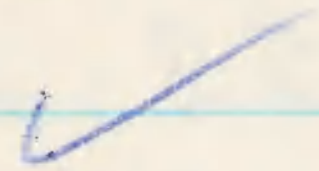
225

250

Wedgetail Banding year

705-14301-500

Adults



~~W + Brood Patch
Covered 7-9-7-7~~

~~Med 2-1-2-3~~

~~Incub 1-1-~~



Banding 9 June

Blue-faced Booby

757- 38450

50 - 81 ♂ SNC	68 ♂ PW/67
51 ♀ RC	69 ♀ R
52 ♀ RC	70 ♀ SNC
53 ♀ RC	71 ♂ 2E
54 ♀ RC	72 ♀ SNC
55 ♂ RC	73 ♀ OER
56 ♂ RC	74 ♂ OFJ
57 ✓ ♂ RC	75 ♂
58 ♂ RC ✓	76 ♂
59 ♂ "	77 ♂ MDC
60 ♀ "	78 ♂ SDC
61 ♀ "	79 ♀ R
62 ♂ "	80 ♀
63 ♂ R	81 ♀
64 ♂ R	82 ♂
65 ♂ SNC	83 ♂ LE
66 ♂ R	84 ♀ SDC
67 ♀ SDC	85 ♂ R

86- ♀ R

87- ♀ R

88- ♀ R

89 ♀ R

90 ♂ R

91 ♀ R

92 ♀ R

93 ♂ R

94 ♀ LDC

95 ♀ R

96 ♂ MDC

97 ♂ R

98 ♂ R

199 ♂ R

100 ♂ IE

9 June Return
✓ADP Blue Face Booby

757- ✓28178 ♂ RC

- ✓28176 ♀ RC

✓28181 + RC

✓28187 ♀ OE

✓25529 ♀ SNC

✓28180 ♂ R

✓28193 ♀ SNE

✓28189 ♂ SNC

✓28190 ♀ SNC

PS
2

✓767 41384 ♂

✓41265 ♀ SDC

✓41189 ♀ R

✓41293 ♀ SDC

✓41329 ♀ R

✓41280 ♀ SDC

✓41183 ♂ R

✓41324 ♀

✓41127 ♀ SNC NB82

✓41343 ♂ SDC NB81

✓ADP

✓80491 ♂ 767 41329 } P

587 - ✓80429 ♀ RC

✓80445 ♀ RC

✓80425 ♂ R

✓80436 ♀ R

✓80486 ♂ 2E

✓80474 ♂

✓80485 ♂ (SDC) } P

✓80482 ♀

✓80492 ♀ 767 41293 } P

757 - ✓28182 ♂ R

✓28191 ♀ R

✓25534 ♂ OE

✓28188 (587 80436 R) ♂

✓25536 (767 41189 P) ♂

255

✓25542 ♀ 2E

✓80468 ♂ R

✓80471 ♂ R

✓ADP

Blue-faced Booby Return

✓587-80487 ♂ OE

✓80495

✓80500 ♂ SNC

✓80493 ♀ SDC New B
80

✓80451 ♀ w/767-41342

✓80417 ♂ R

✓ADP

✓757-895 ♂ SNC

✓894 95 ♂ R

✓5890 25 ♀ SDC

✓767-413 45 ♂

✓89016 ♂ R

767-41122 ✓

41335 ✓

767-41147 ✓

41348 ♂ IE, INC

41165 ♂ NB 84

508-51767 ♂ 2E

767-41173 ♂ R

517 41342 ♂ SDC

41352 ♀ NB 94

41151 ♂ 2E NB 95

517 2785

767-41360 ♀ R ✓

767-41556 ♀ R ✓

508-51785 ♀ R - Non POBSP

ALL on
ADP

10 June

Sooty Tern

Returns

863

77549

843-

65855

67473

65443

60336

67837

61299

65448

77427

69273

62847

67547

64419

68747

68206 (9)

(9)

67917

893-11945

753-

24138

893-11702

20853

06333

24227

08396

(3)

02769

12895

04235

03450

10676

04588

01620 (11)

ALL on ADP

10 June

Sooty

Tern

Returns

903-

85168

793-

82257

21914

(16)

88436

73489

40793

76439

24790

88305

48412

943-

98845

21693

81398

~~81398~~

24919

33514

43959

75151

57729

64995

75025

✓ ADP

Sooty Tern
Returns

863 - 68202 ✓

63086 ✓

77500 ✓

75570 ✓

68841 ✓

64253 ✓

67876 ✓

71658 ✓

903 - 56926 ✓

60579 ✓

20211 ✓

47339 ✓

55666 ✓

29883 ✓

80045 ✓

55583 ✓

49023 ✓

43608 ✓

27802 ✓

89606 ✓

43116 ✓

70876 ✓

53150 ✓

30975 ✓

55833 ✓

53153 ✓

85412 ✓

39120 ✓

(38)

✓ ADP

903 - 41097 ✓

39594 ✓

81272 ✓

51886 ✓

69451 ✓

29849 ✓

69393 ✓

43873 ✓

58353 ✓

22388 ✓

88737 ✓

20765 ✓

86883 ✓

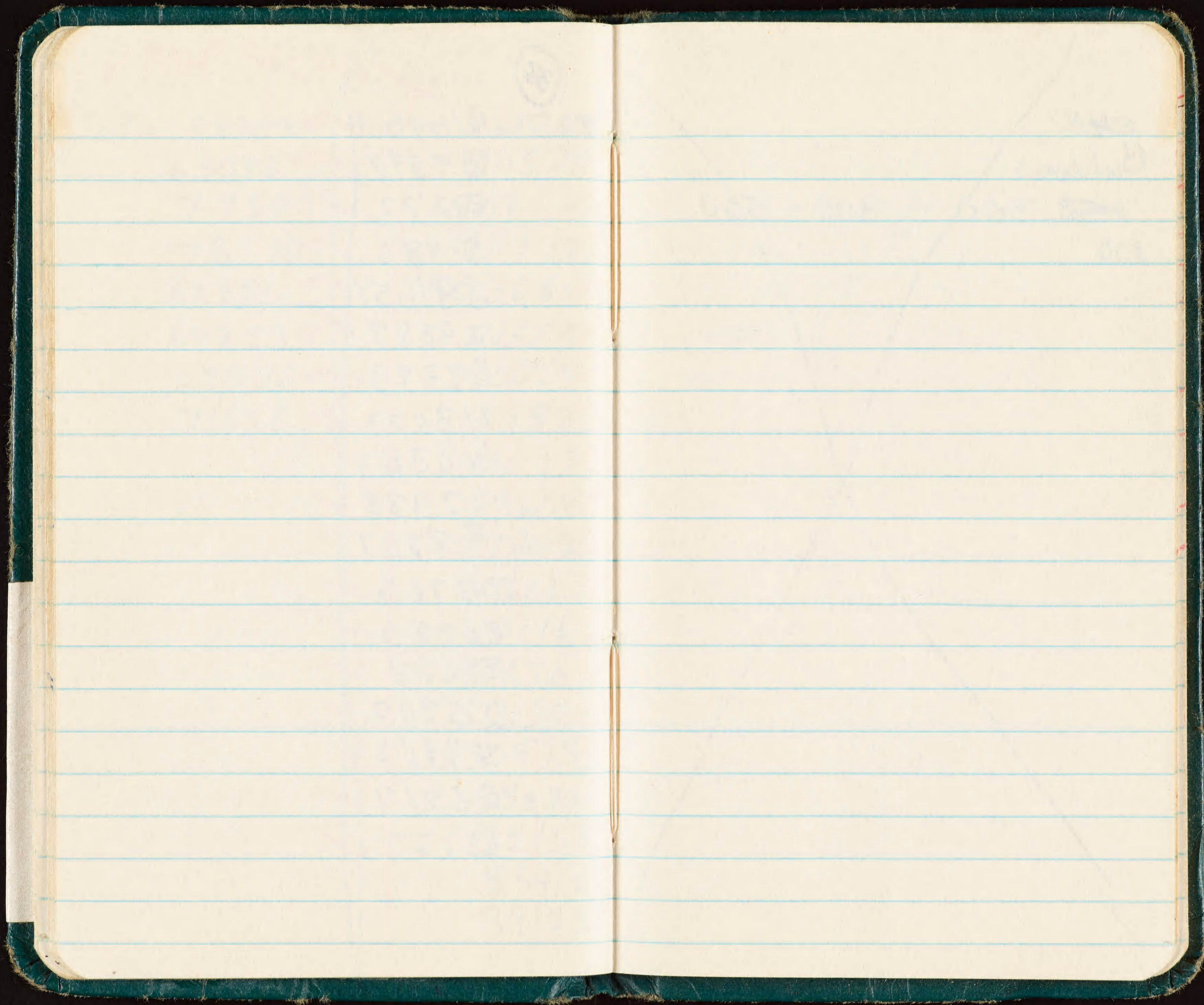
89628 ✓

25302 ✓

59962 ✓

68717 ✓

65127 ✓



~~140~~

Bulwers

~~150~~ 300 - 300 - 500

100

Depth	Materials		Thick	Frags	Facing Bone
	Scaev leaves	Sticks	Thin	Frags	
6"					N
6"	✓	✓		✓	N
6"	✓	✓			NW ✓
6"	✓	✓			NW
6"	✓				N
1'	✓			✓	N
6"	✓				S
1'	✓				N
1'	✓				W
6"	✓	✓		✓	W
1'	✓	✓			

~~Return~~

10 June

Wedgetail

635

17768

Plot	#Adult	SubA	sq Yd
1	3	1	25

Energy 65% Enigron 20 Trib 15

Plot	Adult	SA	SqYd	Dead B	
1	3	1	2.5	0	
2	1	0	2.5	4	
3	—	—	—	—	Open Sandy

Erag	Eragron	Tri b	Bee	Coverage
65	20	15		40%
85	15	—	—	50
—	—	—	—	

Haw NT

OE

SD -1-1-2-2

MD -2-2-3-4-2

LD -4-4-3-6-2

Return 11 June
Sooty Tern **All on ADP**

(18) 863-73526 ✓ 903-81653 (20)
72087 ✓ 21490
69365 ✓ 25937
73986 ✓ 39770
66593 ✓ 39736
69486 ✓ 31833
62592 ✓ 30877
62875 ✓ 31383
62161 ✓ 31570
79406 ✓ 87192
65487 ✓ 42138
73353 ✓ 75387
83152
81152
20790
58326
75917
77191
72392
42606

(A)
823-16655 ✓
20761 ✓
01106 ✓
19496 ✓

All on ADP

(19) 843-69555 ✓ 903 55876 }
63110 ✓ 55872 }
67006 ✓ 46582 }
67834 ✓ 20140 }
65970 ✓ 70846 }
65043 ✓ 51577 }
893 0223 (15) 63561 }
893-08762 20759 }
893 05644 41107 }
893 -14291 74751 }
01346 89076 }
11331 71737 }
10751 68646 }
14352 75319 }
14185 51304 }
02320 793- 82299 ✓
07170 82410 ✓
41983
05742
10922
00206

ALL on ADD

(40)

903- 68117	903- 35833
83752	26440
48845	66756
58643	75630
68621	75856
33043	48910
87792	43064
34021	75642
83083	43462
81319	56127
45386	83528
32890	76262
36672	43662
42363	49137
37093	47522
71495	76188
30849	25431
78830	36847
82574	61091
88223	28761

ALL on ADD

(2)

(11)

893- 83625	663 - 68570 ✓
05231	74143 ✓
10944	68858 ✓
13147	04303 ✓
09071	26796 ✓
00201	74618 ✓
88767	63427 ✓
12680	75425 ✓
07918	73474 ✓
11077	76658 ✓
12801	63287 ✓
000 23	843- 99861 ✓

50079 J
Allen ADA [Cont]

903- 60969

68957

33963

30739

63794

51950

39745

32782

86010

76754

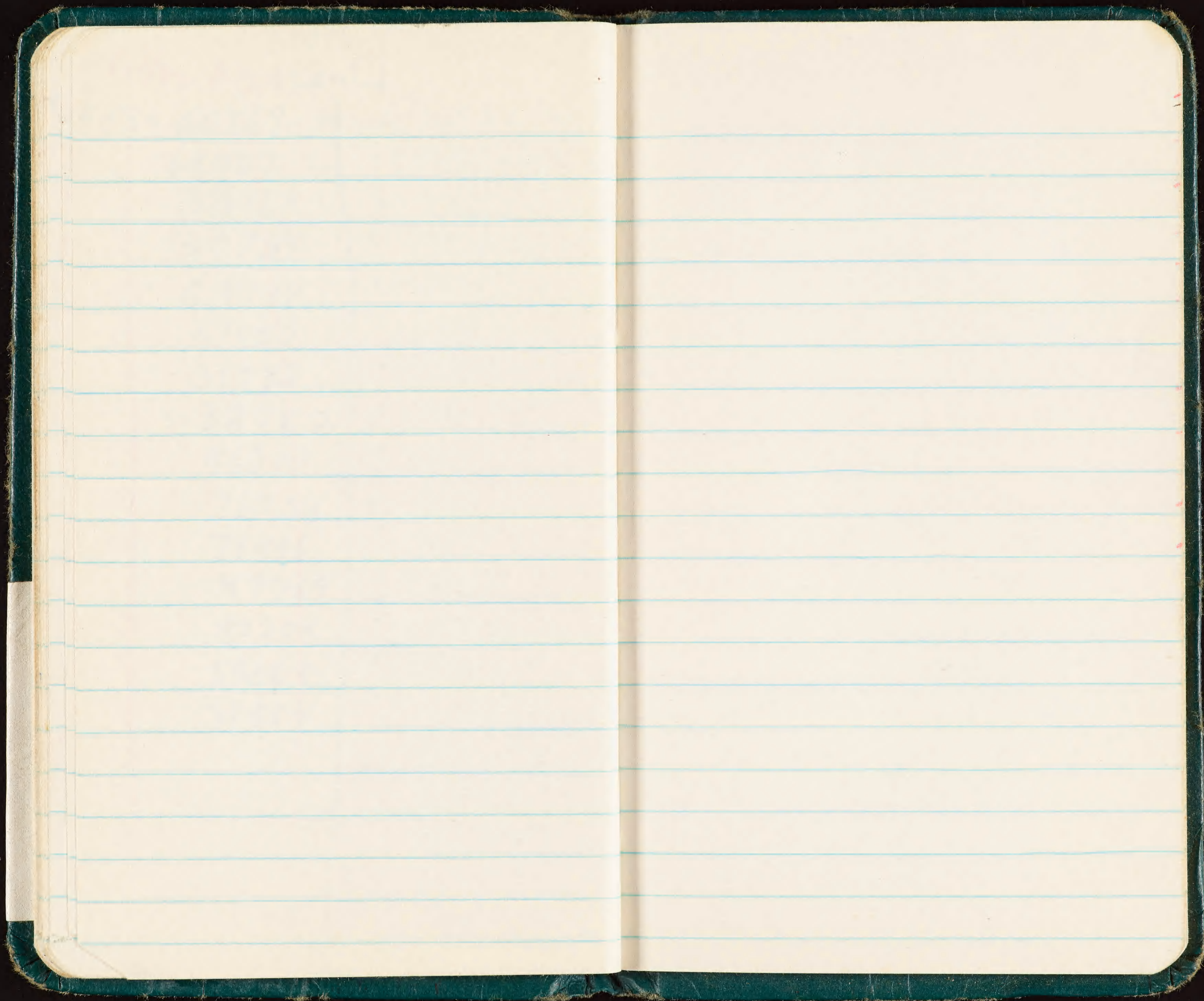
79996

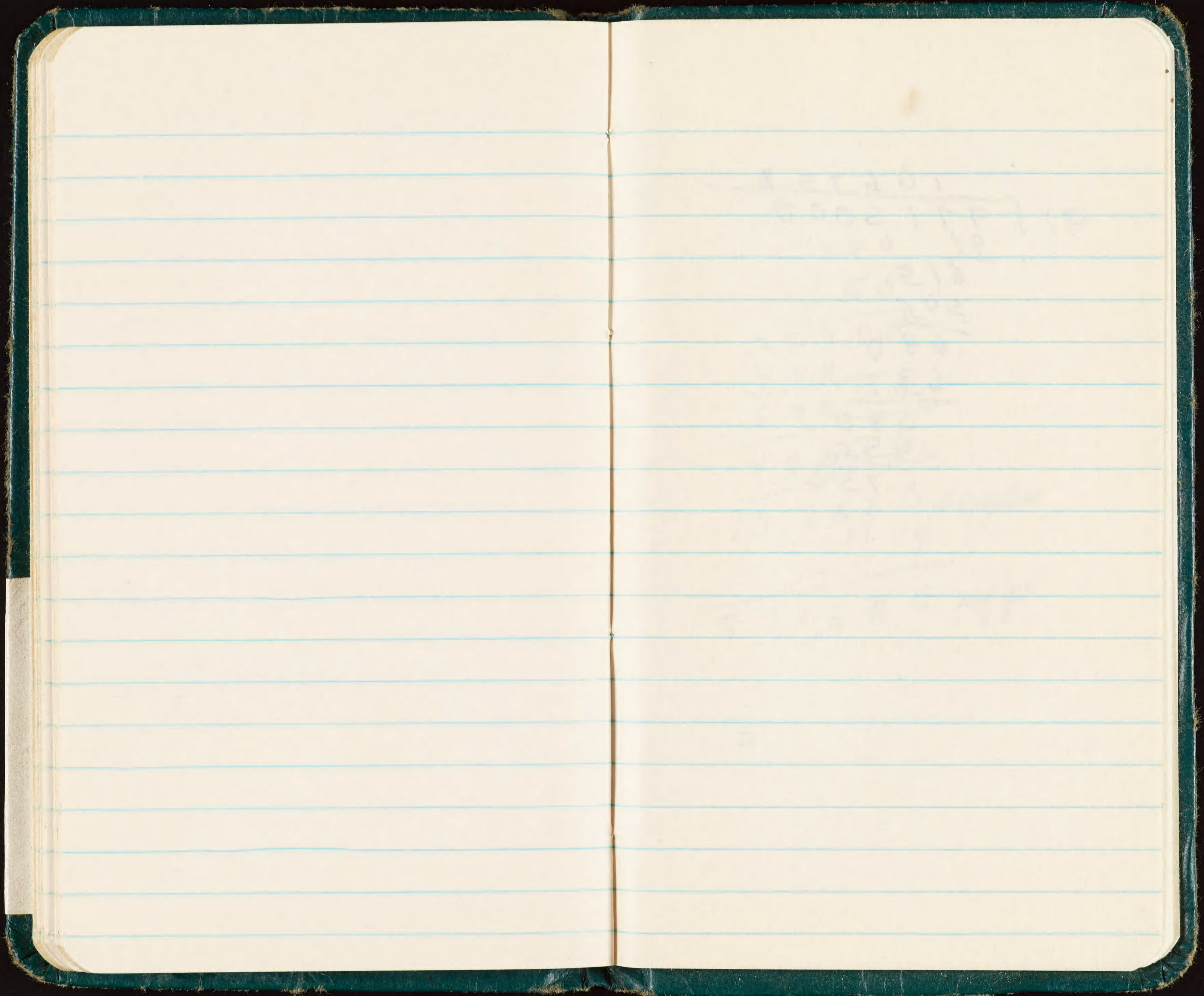
47764

87294

55082

31884





$$\begin{array}{r}
 106758 \\
 91 \overline{) 9715000} \\
 \underline{91} \\
 615 \\
 \underline{546} \\
 690 \\
 \underline{637} \\
 530 \\
 \underline{455} \\
 750
 \end{array}$$

L 450

$$\begin{array}{r}
 450 \\
 \underline{150} \\
 22508 \\
 \underline{450} \\
 67508 \\
 \underline{40000} \\
 107586 \text{ eq yds} \\
 9 \\
 \hline
 971,588 \text{ ft.}
 \end{array}$$

a

$$\begin{array}{r}
 106758 \\
 91 \overline{) 9715000} \\
 \underline{91} \\
 615 \\
 \underline{546} \\
 690 \\
 \underline{637} \\
 530 \\
 \underline{455} \\
 750
 \end{array}$$

$$\begin{array}{r}
 450 \\
 \underline{150} \\
 22500 \\
 \underline{450} \\
 67500 \\
 \underline{40000} \\
 107500 \text{ equals} \\
 9 \\
 \hline
 971,500 \text{ ft.}
 \end{array}$$

a

⑦ 757-29001 to
16

757-30201-30216
used on RFB (bled)
Lisianski -
rest of string not used.

7530-222-007
FEDERAL SUPPLY SE